

1927.



*With the Compliments of the
Medical Officer of Health
and School Medical Officer.*

*City Hall,
Cardiff.*



CITY OF CARDIFF EDUCATION COMMITTEE.

ANNUAL REPORT

FOR 1926

OF THE

SCHOOL MEDICAL OFFICER.

CARDIFF :

F. HODGE AND CO., GLADSTONE STREET.

—
1927.

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PREFACE.

It is possible for a school medical department to degenerate into a mere organisation for patching up the children who are slightly maimed by disease or accident. Even then its function is preventive, in the sense that treatment of apparently trifling disease at its beginning reduces the amount of disease of a more serious character in later life. But the School Medical Service is missing its true vocation if it does not hark back constantly to the causes of disease, and, whether or not these causes are known, to the ways of living which experience has shown to make for the maintenance of health; and having put its finger on these, it must continually cry out till public interest is awakened and remedies applied. This means accurate ascertainment of the extent to which the school population is affected by the different diseases and defects, search for means of prevention, and constant advocacy of the application of such means to the daily life of the school child. Further, the School Medical Officer is not completely functioning unless he is applying medical knowledge and discovery to the solution of problems which may not be purely medical in character, such as the education of the defective child in reference to vocation.

A recent circular from the Board of Education* contains an implication that the purely medical services may with advantage be developed at the expense of the special schools. When it is realised that much of the time of the medical service is devoted to ascertainment of physically and mentally defective children, for many of whom there is no practical alternative but education and supervision in a special school or class, it will be obvious that a departure from the former special school policy would entail a waste of medical staff time rather than a need for more of it; for, although in theory ascertainment should go on without any immediate object in view, it will never be done thoroughly by the practical people who constitute the bulk of the service unless there is some prospect of placing the defective child in better surroundings as soon as he is found. On the other hand, well developed special schools involve an increase of work for the medical and nursing service, for the reason that they afford the opportunity for doing it. The development of the medical and allied services should therefore go hand-in-hand.

Provision for Exceptionally Defective Children.—The scheme for purchasing Greenhill House with eight acres of land as the nucleus and site of a group of schools for physically and mentally defective children received the general approval of the Board during the year. Purchase is virtually completed, and sanction to commence its use as a school has been obtained from the Board. As the result of a certain amount of doubt in official circles as to the value of present methods of educating the mentally defective, it is possible that this side of the scheme may be indefinitely delayed. If so, it is hoped that an alternative policy of special classes in ordinary elementary schools will at least be given a trial, and that this will be associated with an experiment in the way of special provision for dull and backward children, many of whom can hardly be differentiated from high-grade mental defectives without a period of special observation and tuition.

During the year the arrangements for teaching the children with defective eyesight, including the totally blind, were very greatly improved by the transference of the school from rooms in an elementary school building to self-contained premises in Cathedral Road. From having been one of the worst served towns in that respect, Cardiff has now facilities and arrangements which leave little room for improvement. Unfortunately, the number of partially blind children in attendance does not yet justify a sufficient staff to permit of satisfactory age-classification of the scholars.

So far no special provision has been made for partially deaf children, but this question is receiving attention, with special reference to the educational attainment of the 38 children on our lists in relation to their innate mental capacity. In this way it is hoped to arrive at a conclusion as to the best local solution of the problem.

* Circular 1388, 11th February, 1927.

A good deal of attention has been given to the problem of stammering during the year, and the School Management Committee decided on 5th January, 1927, to establish special classes for the cure of children suffering from this distressing disability. Detailed proposals will shortly be put before the Committee.

During 1926 there was a lull in the activity of the Department in ascertaining mental defectives. This was due to two main reasons, viz., the amount of medical staff time occupied in other routine and special work, and the futility of ascertainment in face of the congestion of the school register. The waiting list for examination, however, is now being rapidly overtaken.

The Defective Entrant.—The records of routine medical inspection reveal every year that roughly one quarter of the children admitted to school for the first time are already suffering from one or more diseases or defects. A preponderating number of these children suffer from enlarged tonsils and adenoids, and it is a matter for consideration whether the Maternity and Child Welfare Committee should not extend to children under school age operative facilities similar to those afforded by the Education Committee. Another considerable group consists of cardiac and chronic bronchitic conditions, a problem which can probably best be approached through the medium of a residential open-air school to which children may be admitted from the age of three years. In the meantime, it is possible that some impression may be made on the mass of debilitated children, both of school age and under, by joint provision of artificial sunlight treatment by the Education and Child Welfare Committees.

Crippling Defects and Orthopædics.—The combined arrangement for dealing with cripples of all ages under 16 years has worked smoothly. A very valuable report on the work of the orthopædic clinic and the problem of crippledom generally has been prepared by Dr. Betenson and is embodied in this report (page 20). Special attention is directed to the classification of cases summarised on page 21, showing that of 327 children of school age only 158 may reasonably be expected to be fit for ordinary employment on leaving school—provided that such employment is not denied them as the result of the operation of Unemployment Insurance; 117 will probably be fit for employment under special conditions; while 52 will be virtually unemployable. These facts raise important questions of vocational training associated with special schools for physically defective children. They have also a bearing on the work of the Juvenile Employment Bureau, since the placing of such children is bound to involve special administrative machinery.

The orthopædic clinic has rapidly developed into one of the most onerous of our responsibilities. The present premises have become inadequate for the purpose much sooner than was expected. The provision of a suitable suite of rooms for this work is the most important development of the clinical services required at the present time.

New Clinic Premises.—Towards the end of 1926, after considerable difficulty, new clinic premises in Cowbridge Road were acquired to serve Canton and Ely. The establishment of this district clinic will complete the scheme of extension of the School Medical Service outlined in my Report for 1924 and approved by the Board of Education during that year. At the time of writing the new premises are about to be opened for use.

Special Enquiries and Reports.—In addition to the report on cripples referred to above, other special reports by Assistant Medical Officers are included, viz., on an anthropometric inquiry (page 9), radiography and the treatment of ringworm (page 17), and zinc ionisation (page 18). The report of the Organiser of Physical Education appears on page 26.

RALPH M. F. PICKEN,

School Medical Officer.

City Hall,
Cardiff,
April, 1927.

CHANGES IN THE STAFF.

Dr. T. E. Roberts, an assistant medical officer, resigned on 27th February, and his place was taken by two part-time assistants, Dr. Doris Williams and Dr. C. W. Anderson, both of whom commenced duty on 1st March. Dr. Doris Williams relinquished her post on 30th September, her place being taken by Dr. C. J. Donelan, who commenced duty on 1st October.

Miss G. M. Evans, orthopaedic nurse, resigned on 10th April, and her successor, Miss D. Norton, commenced duty on 3rd May.

CO-ORDINATION.

There is nothing to add under this head to what has been said in previous Reports. Co-ordination with the other health services is effective and complete.

SCHOOL HYGIENE.

Fairly full records are now in existence as to the sanitary state and structural suitability of most of the schools. Minor defects are notified for remedy as occasion arises.

MEDICAL INSPECTION.

The work of inspection during the year is shown in tabular form in Appendix I, Table I.

The total number of elementary school children inspected at routine inspections was 11,655, as compared with 9,970 in 1925, while 2,670 were examined in secondary and high schools, as against 2,250 in 1925.

In addition to routine inspections, 3,651 special examinations were made at the instance of medical officers, teachers, attendance officers, parents or otherwise, at the clinics or at schools, as compared with 3,797 in 1925. In addition, 3,268 children were re-examined during the year, as compared with 2,420 last year, while the actual number of re-examinations made was 7,104 as against 4,988 in 1925.

FINDINGS OF MEDICAL INSPECTION.

Details of the defects requiring treatment or to be kept under observation found at routine and special inspections are set out in Table II A of Appendix I. Of the 11,655 elementary school children inspected at routine inspections, 1,531, or 13.1 per cent., and of the 2,670 secondary and high school children, 257, or 9.6 per cent., were found to be suffering from one or more defects requiring treatment. Of the 3,629 elementary school children specially inspected, 2,058, or 56.7 per cent., and of 22 secondary and high school children, 8, or 36.4 per cent., were found to require treatment. Uncleanliness and dental defects are excluded from these figures.

The proportions of children specially inspected who were found to require treatment are relatively high, because, as a rule, children are referred for special examination only when suspected to be suffering from a disease or defect.

The following table shows the number and proportion of instances in which certain diseases or defects were found :—

| | Defects found at Routine Inspections | | Defects found at Special Inspections | |
|--|---|------------|---|------------|
| | Number | Percentage | Number | Percentage |
| Malnutrition | 84 | 0.58 | 17 | 0.47 |
| Uncleanliness | 120 | 0.84 | 10 | 0.27 |
| Skin Diseases | 112 | 0.78 | 871 | 23.86 |
| Defective Vision and Squint | 929 | 6.48 | 408 | 11.17 |
| External and Other Eye Diseases | 52 | 0.36 | 137 | 3.75 |
| Otitis Media | 119 | 0.83 | 87 | 2.38 |
| Other Ear Diseases | 86 | 0.60 | 92 | 2.52 |
| Enlarged Tonsils only | 779 | 5.44 | 196 | 5.37 |
| Adenoids only | 33 | 0.23 | 33 | 0.90 |
| Enlarged Tonsils and Adenoids | 47 | 0.33 | 78 | 2.14 |
| Other Nose and Throat Defects | 21 | 0.15 | 48 | 1.31 |
| Enlarged Cervical Glands | 31 | 0.21 | 19 | 0.52 |
| Defective Speech | — | — | — | — |
| Dental Diseases (found by Medical Officers) ... | 1,317 | 9.19 | 201 | 5.50 |
| Heart Disease | 148 | 1.03 | 28 | 0.77 |
| Anæmia | 50 | 0.35 | 49 | 1.34 |
| Lung Diseases—Non-Tuberculous | 203 | 1.41 | 39 | 1.07 |
| Tuberculosis (All forms, including suspects) ... | 7 | 0.05 | 19 | 0.52 |
| Nervous Diseases | 4 | 0.03 | 34 | 0.93 |
| Deformities | 87 | 0.61 | 26 | 0.71 |
| Other Defects and Diseases | 81 | 0.56 | 203 | 5.56 |

Enlargement of the Thyroid Gland.—Records have again been kept of children approaching puberty who were found to have enlargement of the thyroid gland (simple goitre). Among 5,144 children (2,636 boys and 2,508 girls) who had attained the age of 12 years at the beginning of 1926 and who were examined during the year, 179 (25 boys and 154 girls) were found to have enlargement of the gland. This gives a percentage incidence of 3.48 (0.95 per cent. of boys and 6.14 of girls). The proportions have remained fairly constant since these observations were commenced.

Defects among Entrants.—The above table and the more detailed returns in Appendix I, Table II A, refer to children in all groups. Table II B of Appendix I, shows the proportion of children entering school who required treatment, and a special table (II C) is again included showing those who required treatment or observation for defects of various kinds. The proportion of entrants found at routine examinations who suffered from such defects as required immediate treatment (exclusive of uncleanliness, pediculosis and dental diseases) amounted to 8.7 per cent., as compared with 10.3 last year, while the percentage is increased to 25.2 if all defects requiring either treatment or observation are taken into consideration. This latter figure compares with 20.8 per cent. last year. Nearly a third of the defects recorded were affections of the nose and throat, of which the majority were enlarged tonsils and adenoids.

RE-INSPECTION OF CHILDREN FOUND DEFECTIVE.

As usual, a survey was made by the medical staff of cases in certain categories referred for treatment or observation during the previous year. The total number of children overtaken in this survey was 1,293, showing 1,334 defects (see Appendix I, Table VI). Such defects as malnutrition, uncleanliness and infectious skin diseases, which are continuously under supervision because of exclusion from school, and dental diseases, regarding which fairly full knowledge is obtained through the clinic organisation, were omitted from this enquiry. A large number of the children previously found defective had left school or were absent at the time of re-inspection.

Of the 1,334 defects in children re-inspected, 571 had not been treated, this number including some cases of such a serious nature as heart disease, anæmia, lung diseases, and deformities. The state of the defects on re-inspection, classified according to whether or not they had received treatment, may be shown as follows :—

| | Percentage. | | | |
|---------------------------------|--------------------|---------------|--------|---------|
| | Cured or improved. | Not improved. | Worse. | Totals. |
| Treated at School Clinic | 93.3 | 6.5 | 0.2 | 100 |
| Treated Elsewhere | 90.4 | 9.0 | 0.6 | 100 |
| Not Treated | 13.8 | 85.0 | 1.2 | 100 |
| All Cases | 58.9 | 40.4 | 0.7 | 100 |

ANTHROPOMETRIC INQUIRY.

In July, 1925, the Board of Education invited the Department to co-operate in the work of the Anthropometric Committee who were appointed to inquire into certain factors governing the growth and development of healthy children living under varied conditions, with a view to obtaining a series of anthropometric figures (norms) from all parts of the country which would be of value to School Medical Officers and others in the estimation and comparison of nutrition, physique, etc. The inquiry was commenced in 1925 and carried on into 1926. A report by Dr. Betenson, who undertook the inquiry, is given below.

In connection with the anthropometric inquiry undertaken at the instance of the Board of Education, the schedule issued asked for the following data :—

1. Nationality, place of birth, and occupation of both parents.
2. Numbers of each child's brothers and sisters (alive or dead) and their positions in the family.
3. Standing height in stockings.
4. Sitting height.
5. Weight of boys in knickers, and stockings only, and of girls in knickers, stockings and vest only.
6. Chest measurement at full expiration.
7. Colour of eyes and hair.
8. Length, breadth and circumference of head.

The colour of eyes and hair was judged by comparison with standard tints—six of each. The eye tints were dark brown, pale green, dark blue, brown-green, dark grey-green, and pale blue; those for the hair were black, dark brown, brown, light brown, red, and flaxen. Special calipers were provided for the head measurements.

In Cardiff forty schools were visited.* The method of selection aimed at was to choose the children at random by name from the school registers, one of each age and sex, from 5 to 13 years inclusive, without seeing the child prior to selection. An attempt was made to have all the children as nearly as possible of the same age, and since those who were 7 months past their birthday had been chosen at the start of the inquiry, this age was adhered to throughout when possible.

Nine children of each sex, i.e., one of each age from 5 to 13, were examined from forty schools - $40 \times 9 \times 2 = 720$ children. The reason for this method of selection was to avoid personal bias in any direction on the part of the observer. Unfortunately, the number examined was too small to be taken as truly indicative of Cardiff school children, and statistically may be considered open to a large error of chance, but the results show some points of interest.

Of 696 children of whom the place of birth of the parents could be ascertained, less than 26.3 per cent. had both parents born in Cardiff. Approximately the same number had one parent so born, leaving nearly half the children whose parents were born outside Cardiff, and, indeed, most of these were born outside Wales.

The nationality of the parents, obtained in 705 instances, is also of interest and is shown in the following table :—

* Details of the procedure adopted are contained in Appendix II for reference.

| Age— Years | Both parents. | | | | One parent Welsh the Other Eng- lish, Irish or Scottish | Other combinations of British and/or Irish parentage | One or both parents Foreign |
|---------------|---------------|---------|-------|----------|--|--|--------------------------------------|
| | Welsh | English | Irish | Scottish | | | |
| 5 | 7 | 34 | 6 | — | 15 | 8 | 6 |
| 6 | 11 | 40 | 4 | — | 10 | 4 | 8 |
| 7 | 11 | 40 | 4 | — | 14 | 7 | 4 |
| 8 | 10 | 35 | 7 | — | 17 | 2 | 6 |
| 9 | 14 | 39 | 2 | — | 12 | 6 | 7 |
| 10 | 9 | 41 | 3 | 1 | 10 | 9 | 7 |
| 11 | 11 | 42 | 6 | — | 11 | 5 | 3 |
| 12 | 11 | 32 | 7 | — | 18 | 6 | 5 |
| 13 | 4 | 34 | 4 | 1 | 26 | 6 | 3 |
| Totals | 88 | 337 | 43 | 2 | 133 | 53 | 49 |

This information was ascertained with meticulous care, and is very significant as showing the small proportion of pure Welsh stock in a random sample of Cardiff school children.

Unfortunately, the numbers were too small to permit of any comparative anthropometric tables on the above-mentioned classification by race of the parents. The figures given below might be completely falsified if another sample were taken.

Below are given the results of the Cardiff sample compared with—

1. The results as ascertained by Miss Elderton in her work on the heights and weights of Glasgow school children*. She classified the children in four groups, as follows :—

- (a) Those from the poorest districts.
- (b) Those from poor districts.
- (c) Those from districts of a better class.
- (d) Those from districts of a still higher class, including four high-grade schools.

2. A table representing the results of an examination of over 15,000 rural elementary school children of East Sussex as given by Dunstan in his recent work on this subject.†

3. For boys only a table giving the average heights and weights of London boys of the industrial class grouped as A1 by Corry Mann.‡

The tables must not be regarded as strictly comparable. The East Sussex and Glasgow figures are age + 6 months and the London County Council boys at the height and weight attained at each year of age.

* *Biometrika*, Vol. 10, 1914-15.

† *Metron*, Vol. V, No. 2, 1925.

‡ *Medical Research Council Special Report Series*, No. 105.

AVERAGE HEIGHTS—BOYS.

| Glasgow. | | | | | Cardiff. | | East Sussex. | | London (A1). | |
|-----------|--------|--------|--------|--------|----------|--------|--------------|--------|--------------|--------|
| Age | A* | B† | C‡ | D§ | Age | | Age | | Age | |
| Years. | cms. | cms. | cms. | cms. | Years. | cms. | Years. | cms. | Years. | cms. |
| 5.5- 6.5 | 104.90 | 106.93 | 106.93 | 109.22 | 5.58 | 102.86 | 5.5 | 105.73 | 5 | 104.14 |
| 6.5- 7.5 | 109.22 | 111.76 | 111.76 | 113.79 | 6.58 | 112.33 | 6.5 | 111.65 | 6 | 111.76 |
| 7.5- 8.5 | 114.55 | 116.58 | 117.35 | 119.13 | 7.58 | 117.14 | 7.5 | 117.22 | 7 | 116.84 |
| 8.5- 9.5 | 119.38 | 121.16 | 122.17 | 124.46 | 8.58 | 122.26 | 8.5 | 122.46 | 8 | 119.38 |
| 9.5-10.5 | 123.95 | 125.73 | 126.74 | 129.28 | 9.58 | 126.57 | 9.5 | 127.39 | 9 | 125.73 |
| 10.5-11.5 | 128.52 | 130.81 | 130.81 | 133.60 | 10.58 | 130.96 | 10.5 | 132.04 | 10 | 132.08 |
| 11.5-12.5 | 132.84 | 134.11 | 135.89 | 137.67 | 11.58 | 135.35 | 11.5 | 136.43 | 11 | 135.89 |
| 12.5-13.5 | 136.65 | 137.92 | 139.70 | 141.98 | 12.58 | 141.24 | 12.5 | 140.58 | 12 | 139.70 |
| 13.5-14.5 | 140.21 | 140.97 | 145.28 | 146.56 | 13.58 | 144.05 | 13.5 | 144.52 | 13 | 144.78 |

AVERAGE WEIGHTS—BOYS.

| Glasgow. | | | | | Cardiff. | | East Sussex. | | London (A1). | |
|-----------|------|------|------|------|----------|-------|--------------|-------|--------------|------|
| Age. | A* | B† | C‡ | D§ | Age | | Age | | Age | |
| Years. | lbs. | lbs. | lbs. | lbs. | Years. | lbs. | Years. | lbs. | Years. | lbs. |
| 5.5-6.5 | 40.9 | 42.0 | 42.5 | 43.3 | 5.58 | 40.69 | 5.5 | 39.95 | 5 | 40.0 |
| 6.5-7.5 | 44.2 | 45.6 | 45.9 | 46.6 | 6.58 | 41.95 | 6.5 | 43.97 | 6 | 44.5 |
| 7.5-8.5 | 48.0 | 49.6 | 50.1 | 51.2 | 7.58 | 48.25 | 7.5 | 48.17 | 7 | 49.5 |
| 8.5-9.5 | 52.3 | 53.9 | 54.4 | 56.3 | 8.58 | 52.60 | 8.5 | 52.59 | 8 | 55.0 |
| 9.5-10.5 | 56.7 | 58.4 | 59.5 | 61.2 | 9.58 | 54.58 | 9.5 | 57.29 | 9 | 60.5 |
| 10.5-11.5 | 61.6 | 62.7 | 63.9 | 66.3 | 10.58 | 61.03 | 10.5 | 62.33 | 10 | 67.5 |
| 11.5-12.5 | 66.4 | 67.8 | 69.1 | 70.8 | 11.58 | 68.81 | 11.5 | 67.76 | 11 | 72.0 |
| 12.5-13.5 | 71.7 | 72.9 | 75.6 | 76.9 | 12.58 | 73.29 | 12.5 | 73.63 | 12 | 76.5 |
| 13.5-14.5 | 75.6 | 77.3 | 82.2 | 83.2 | 13.58 | 80.21 | 13.5 | 79.99 | 13 | 82.5 |

AVERAGE HEIGHTS—GIRLS.

| Glasgow. | | | | | Cardiff. | | East Sussex. | |
|-----------|--------|--------|--------|--------|----------|--------|--------------|--------|
| Age. | A* | B† | C‡ | D§ | Age. | | Age. | |
| Years. | cms. | cms. | cms. | cms. | Years. | cms. | Years. | cms. |
| 5.5- 6.5 | 104.14 | 106.68 | 106.42 | 108.46 | 5.58 | 99.83 | 5.5 | 104.99 |
| 6.5- 7.5 | 108.96 | 110.99 | 110.99 | 113.79 | 6.58 | 112.30 | 6.5 | 110.91 |
| 7.5- 8.5 | 113.28 | 115.82 | 115.82 | 117.86 | 7.58 | 117.29 | 7.5 | 116.51 |
| 8.5- 9.5 | 118.36 | 120.39 | 120.90 | 123.44 | 8.58 | 122.37 | 8.5 | 121.87 |
| 9.5-10.5 | 123.19 | 124.97 | 125.48 | 128.01 | 9.58 | 126.16 | 9.5 | 127.08 |
| 10.5-11.5 | 127.76 | 129.79 | 130.04 | 132.58 | 10.58 | 131.92 | 10.5 | 132.23 |
| 11.5-12.5 | 133.09 | 134.62 | 135.38 | 137.41 | 11.58 | 136.46 | 11.5 | 137.39 |
| 12.5-13.5 | 138.17 | 140.21 | 140.72 | 143.51 | 12.58 | 141.81 | 12.5 | 142.66 |
| 13.5-14.5 | 141.73 | 145.03 | 144.78 | 149.10 | 13.58 | 147.36 | 13.5 | 148.11 |

* Children from the poorest districts.

† " " poor districts.

‡ " " districts of a better class.

§ " " a still higher class, including a high-grade school.

AVERAGE WEIGHTS—GIRLS.

| Glasgow. | | | | | Cardiff. | | East Sussex. | |
|-----------|------|------|------|------|----------|-------|--------------|-------|
| Age. | A* | B† | C‡ | D§ | Age. | | Age. | |
| Years. | lbs. | lbs. | lbs. | lbs. | Years. | lbs. | Years. | lbs. |
| 5.5-6.5 | 39.9 | 40.6 | 41.3 | 41.8 | 5.58 | 38.29 | 5.5 | 39.08 |
| 6.5-7.5 | 43.0 | 43.9 | 44.7 | 45.6 | 6.58 | 41.48 | 6.5 | 42.96 |
| 7.5-8.5 | 46.4 | 47.7 | 48.1 | 49.3 | 7.58 | 46.51 | 7.5 | 47.03 |
| 8.5-9.5 | 50.5 | 51.8 | 52.7 | 54.3 | 8.58 | 49.04 | 8.5 | 51.45 |
| 9.5-10.5 | 54.7 | 55.8 | 56.9 | 58.8 | 9.58 | 53.82 | 9.5 | 56.37 |
| 10.5-11.5 | 59.5 | 60.8 | 61.9 | 64.4 | 10.58 | 61.01 | 10.5 | 61.95 |
| 11.5-12.5 | 65.3 | 66.8 | 68.4 | 70.5 | 11.58 | 66.66 | 11.5 | 68.34 |
| 12.5-13.5 | 72.4 | 74.3 | 76.1 | 78.8 | 12.58 | 76.60 | 12.5 | 75.69 |
| 13.5-14.5 | 76.8 | 81.3 | 83.0 | 89.0 | 13.58 | 81.63 | 13.5 | 84.16 |

With regard to colour of hair and eyes, the boys and girls showed great similarity, except in regard to flaxen hair, which in the case of some boys was very difficult to classify. It will be noticed that only four children had true black hair in spite of the large proportion of foreign children examined.

Colour of Hair :—

| Colour. | Boys. | Girls. | Totals |
|--------------------|-------|--------|--------|
| Black | 1 | 3 | 4 |
| Dark brown | 31 | 41 | 72 |
| Brown | 109 | 129 | 238 |
| Light Brown | 101 | 109 | 210 |
| Red | 16 | 16 | 32 |
| Flaxen | 102 | 62 | 164 |
| Totals | 360 | 360 | 720 |

Colour of Eyes :—

| Colour | Boys. | Girls. | Totals. |
|------------------------|-------|--------|---------|
| Dark brown | 50 | 36 | 86 |
| Pale green | 9 | 9 | 18 |
| Dark blue | 69 | 83 | 152 |
| Brown-green | 72 | 74 | 146 |
| Dark grey-green | 101 | 102 | 203 |
| Pale blue | 59 | 56 | 115 |
| Totals | 360 | 360 | 720 |

Growth of the head in children is very little indeed. Boys heads were found always to be larger than those of the girls; this was expected to be the case. What very little difference there is in the size of the head may be judged by the following table, which shows the size of the smallest and largest head of the children aged 5 and 13 years, and the average size of the heads of all children at these two ages:

* Children from the poorest districts.

† " " poor districts.

‡ " " districts of a better class.

§ " " " " a still higher class, including a high grade-school.

| | Anteroposterior. | | | Lateral. | | | Circumferential. | | |
|----------|------------------|-------|---------|----------|-------|---------|------------------|-------|---------|
| | Min. | Max. | Average | Min. | Max. | Average | Min. | Max. | Average |
| Boys— | cms. | cms. | cms. | cms. | cms. | cms. | cms. | cms. | cms. |
| 5 years | 16.60 | 18.50 | 16.97 | 12.60 | 15.20 | 13.90 | 49.53 | 53.97 | 51.23 |
| 13 years | 17.60 | 19.80 | 18.47 | 13.20 | 15.40 | 13.85 | 50.16 | 56.51 | 53.46 |
| Girls— | | | | | | | | | |
| 5 years | 16.40 | 18.00 | 17.00 | 12.70 | 14.60 | 13.65 | 45.72 | 52.70 | 49.93 |
| 13 " | 16.90 | 18.80 | 18.03 | 13.10 | 15.30 | 14.01 | 49.53 | 55.88 | 52.34 |

EXCEPTIONAL CHILDREN.

The problem of providing for exceptional children and the extent to which it has been solved or is in process of solution has been dealt with in the preface. The following paragraphs present the current statistics or indicate where they may be found.

Physically Defective Children.—The numbers of children found to be physically defective are recorded in Appendix I (Table III).

Mentally Defective Children.—The number of children on the register of the Special Day School at 31st December, 1926, was 95, as compared with 84 in 1925.

The numbers of children of special school age known to be mentally defective at 31st December, 1926, whether under the Education Authority or Mental Deficiency Authority were as follows :—

| Classification. | Education Authority Cases. | | Mental Deficiency Authority Cases. | | Totals. |
|----------------------|----------------------------|-------------------------------|--|----------------------------|---------|
| | Attending Special School. | Not attending Special School. | In Institutions or under Guardianship. | Under Supervision at Home. | |
| Feeble-minded | 95 | 15* | 6 | 9 | 125 |
| Imbeciles | — | — | 13 | 41 | 54 |
| Idiots | — | — | 4 | 16 | 20 |
| Totals | 95 | 15 | 23 | 66 | 199 |

During the year 44 children were specially examined or re-examined for suspected mental deficiency. Of these, 15 were regarded as not defective, 17 were certified as feeble-minded and suitable for education in a special school, while 12 were passed on to the Mental Deficiency Committee. The last group consisted of 2 feeble-minded children, 6 imbeciles and 4 idiots.

Blind Children.—The numbers of blind and partially blind children are given in Appendix I (Table III).

Deaf Children.—Records of the number of deaf and partially deaf children will be found in Appendix I (Table III).

Stammerers.—The following statement shows the number of stammerers in elementary and secondary schools who are known to the Department and whose condition has been verified by the medical staff :—

* Including 8 attending private schools, and 7 absent from the Special School pending arrangements for admission or because of illness or physical defect.

| | | | | | | |
|---------------------|-----|-----|-----|-----|-----|----|
| Secondary Schools— | | | | | | |
| Boys | ... | ... | ... | ... | ... | 4 |
| Girls | ... | ... | ... | ... | ... | — |
| Elementary Schools— | | | | | | |
| Boys | ... | ... | ... | ... | ... | 78 |
| Girls | ... | ... | ... | ... | ... | 13 |
| Infants— | | | | | | |
| Boys | ... | ... | ... | ... | ... | 2 |
| Girls | ... | ... | ... | ... | ... | — |
| Total | | | | | | 97 |

These numbers are incomplete, children from several large schools not being included. Judged by the number of suspected stammerers contained on lists submitted by head teachers within recent date (April, 1927), but not yet revised by the medical staff, the actual figure is not less than 150 and may be considerably higher.

INFECTIOUS DISEASES.

The numbers of school children notified during the year as suffering from various infectious diseases were as follows :—

| | | | | | | |
|--------------------------|-----|-----|-----|-----|-----|-----|
| Scarlet Fever | ... | ... | ... | ... | ... | 183 |
| Diphtheria | ... | ... | ... | ... | ... | 132 |
| Enteric Fever | ... | ... | ... | ... | ... | 4 |
| Pneumonia | ... | ... | ... | ... | ... | 25 |
| Cerebro-Spinal Fever | ... | ... | ... | ... | ... | 2 |
| Acute Poliomyelitis | ... | ... | ... | ... | ... | 2 |
| Encephalitis Lethargica | ... | ... | ... | ... | ... | 2 |
| Erysipelas | ... | ... | ... | ... | ... | 4 |
| Tuberculosis—Respiratory | ... | ... | ... | ... | ... | 20 |
| „ Other Forms | ... | ... | ... | ... | ... | 40 |

The following cases of non-notifiable infectious diseases were intimated by head teachers or school attendance officers, or were otherwise ascertained :—

| | | | | | | |
|----------------|-----|-----|-----|-----|-----|-------|
| Chickenpox | ... | ... | ... | ... | ... | 266 |
| Measles | ... | ... | ... | ... | ... | 1,323 |
| German Measles | ... | ... | ... | ... | ... | 24 |
| Whooping Cough | ... | ... | ... | ... | ... | 168 |
| Mumps | ... | ... | ... | ... | ... | 333 |

Diphtheria.—The localised epidemic in connection with Allensbank School, mentioned in last year's report, subsided early in 1926. In anticipation of a recrudescence in the autumn, active immunisation was offered especially to all children under 10 years in this and other neighbouring schools, with the following result :—

| School | Number on Registers | Schick Tested | | Positive | | Immunised | | |
|-------------------------------|---------------------------|---------------|------------|-------------|------------|-------------|------------|--|
| | | Num- ber | Percentage | Num- ber | Percentage | Num- ber | Percentage | |
| ALLENSBANK— | | | | | | | | |
| Children under 10 years ... | 684 | 266 | 38.9 | 192 | 72.2 | 192 | 100.0 | |
| Children over 10 years ... | 578 | 174 | 30.1 | 87 | 50.0 | 87 | 100.0 | |
| Children under school age ... | — | — | — | — | — | 44 | — | |
| GLADSTONE— | | | | | | | | |
| Children under 10 years ... | 733 | 241 | 32.9 | 187 | 77.6 | 184 | 98.4 | |
| CRWYS ROAD— | | | | | | | | |
| Children under 10 years ... | 382 | 72 | 18.8 | 39 | 54.2 | 39 | 100.0 | |

Further details will be published in the Annual Report on the Public Health for 1926. Immunisation is proceeding in other areas of the city, the response from parents being fairly satisfactory. In the meantime diphtheria, although rather more prevalent than in recent years, has not yet assumed serious epidemic proportions.

Vaccinal State of the School Population.—The following table showing the vaccinal state of 14,325 children and young persons (elementary, secondary and high schools) inspected during 1926, shows a further fall in the proportion of school children who have been vaccinated :—

| Age—Years. | Vaccinated. | Unvaccinated. | Totals. | Percentage Vaccinated. |
|------------|-------------|---------------|---------|---------------------------|
| 3 | 56 | 45 | 101 | 55.4 |
| 4 | 632 | 574 | 1,206 | 52.4 |
| 5 | 1,168 | 912 | 2,080 | 56.1 |
| 6 | 704 | 599 | 1,303 | 54.0 |
| 7 | 151 | 113 | 264 | 57.2 |
| 8 | 67 | 55 | 122 | 54.9 |
| 9 | 2,191 | 1,340 | 3,531 | 62.0 |
| 10 | 210 | 112 | 322 | 65.2 |
| 11 | 167 | 85 | 252 | 66.3 |
| 12 | 1,448 | 735 | 2,183 | 66.3 |
| 13 | 1,125 | 558 | 1,683 | 66.8 |
| 14 | 388 | 192 | 580 | 66.9 |
| 15 | 295 | 115 | 410 | 72.0 |
| 16 | 150 | 47 | 197 | 76.1 |
| 17 | 60 | 13 | 73 | 82.2 |
| 18 | 15 | 2 | 17 | 88.2 |
| 19 | 1 | — | 1 | 100.0 |
| Totals. | 8,828 | 5,497 | 14,325 | 61.6 |

“ FOLLOWING UP ” AND THE WORK OF SCHOOL NURSES.

Following Up.—The number of new cases visited by the nurses was 4,843, compared with 3,877 in 1925, and the number of visits made 6,354, as against 5,708 last year. These were distributed as follows :—

| | First Visits. | Revisits. | Totals. |
|---------------------------------|---------------|-----------|---------|
| Defects of Vision | 755 | 277 | 1,032 |
| „ „ Teeth | 1,015 | 241 | 1,256 |
| „ „ Ear, Throat and Nose | 572 | 182 | 754 |
| Other Defects | 2,501 | 811 | 3,312 |
| Totals | 4,843 | 1,511 | 6,354 |

Cleanliness Surveys.—The nurses paid 318 special visits to schools, making 52,140 examinations of children for uncleanliness. The number of children found to be harbouring vermin was 844, and 2,911 were found to have nits only. The number of children previously found unclean who were re-examined was 1,533 ; of these, 770 were found to be free from vermin and 286 to be free from vermin and nits. The proportion of children found to be actually verminous was 1.6 per cent., as compared with 2.9 per cent. in 1925. There is a marked improvement in the cleanliness of the children's heads, which may be mainly attributed to the activities of the school nurses and to the facilities provided whereby parents are able to obtain special metal nit combs at cost price through the Department. No doubt the practice of bobbing and shingling the hair of girls is also an important factor in facilitating cleansing.

Other Work of School Nurses.—The nurses regularly assisted the medical officers at routine and special inspections at schools and the clinics, and themselves attended to a large number of children at the clinic premises. Nursing assistance was also rendered to the school dentists at the clinics. The number of children cleansed by the nurses at the Corporation Cleansing Station was 66, and the number of baths given 292.

MEDICAL TREATMENT.

Arrangements have been made for medical and other treatment of school children at school clinics as follows :—

- (i) Treatment of minor ailments.
- (ii) X-ray treatment of ringworm of the scalp.
- (iii) Zinc ionisation for otorrhœa.
- (iv) Operative treatment of nose and throat defects.
- (v) Correction of errors of refraction.
- (vi) Orthopædic treatment.
- (vii) Dental treatment.

Minor Ailments.—Table IV, Group I, in Appendix I, gives details of the treatment of minor ailments (skin diseases, minor eye and ear defects, etc.), from which it will be seen that altogether 1,127 defects were treated at the school clinics as compared with 937 in 1925.

As usual, the nurses of Queen Victoria's Jubilee Institute for Nurses rendered useful assistance in the treatment of minor ailments. Eighty-eight cases were referred to them for treatment, and they paid 2,507 visits to the homes of children to administer treatment. Details of this work are given below :—

| Disease or Defect. | Carried over from 1925. | | Referred for Treatment during 1926. | | Totals. | |
|----------------------|-------------------------|---------|-------------------------------------|---------|---------|---------|
| | Cases. | Visits. | Cases. | Visits. | Cases. | Visits. |
| Skin :— | | | | | | |
| Ringworm .. | — | — | 2 | 78 | 2 | 78 |
| Impetigo .. | 2 | 12 | 35 | 662 | 37 | 674 |
| Other Skin Diseases | 3 | 68 | 17 | 292 | 20 | 360 |
| Minor Eye Defects .. | 3 | 167 | 16 | 800 | 19 | 967 |
| Minor Ear Defects .. | 2 | 197 | 1 | 13 | 3 | 210 |
| Miscellaneous .. | — | — | 17 | 218 | 17 | 218 |
| Totals .. | 10 | 444 | 88 | 2,063 | 98 | 2,507 |

Ringworm.—Two hundred and twenty-one cases of ringworm were treated by or under the supervision of the medical staff of the Department. Of this number, 99 were cases of ringworm of the scalp, 79 of whom were treated by X-rays. The X-ray apparatus is used both for the treatment of ringworm and for radiography, and the work done in this connection is dealt with by Dr. McSweeney in the following notes :—

Notes by Dr. McSweeney on X-ray Treatment of Ringworm of the Scalp and on Radiography.

X-ray Treatment of Scalp Ringworm.—During 1926, 79 cases of ringworm of the scalp received treatment by X-rays. Cure was effected in all cases. No untoward results were observed and a satisfactory regrowth of healthy hair followed every epilation.

When intelligent co-operation on the part of the parents is combined with regular attendance at the ringworm clinic, it is usual for a child to be certified free of infection and sent back to school 26 or 27 days subsequent to irradiation. In almost 60 per cent. of the cases this desirable state of things was accomplished. School holidays, intercurrent illness in the home, and more rarely, parental apathy, sometimes occasion the child's absence from supervision at the critical period of the defluvium. It must be remembered that even when a full epilation dose has been given, some hairs do not easily fall and may need to be helped out. This is particularly so where hairs break off at the level of the scalp (stumps). To allow stumps to remain means that infection will persist locally, and, in time, spread to the newly growing hair. It is in such cases of imperfect epilation, due to failure to attend the ringworm clinic, that one or more areas may require to be retreated after the lapse of a suitable interval. Despite difficulties of this kind the average period of exclusion after X-ray treatment for the 79 cases was found not to exceed 33 days.

Under the conditions prevailing in school medical work, it would seem that partial epilation of the scalp, except in very early and localized infections, is seldom desirable. The tendency is for the infection to spread to an adjacent unepilated portion, and further treatment of that area is necessary. Complete irradiation at the first sitting thus saves time and trouble and the eradication of the disease is assured.

The ages of patients treated have varied from under three years to twelve years.

Five cases had re-treatment carried out and four (partial epilations) had to have further areas treated before cure was effected.

General Radiography.—Complete co-operation now exists between the X-ray department and all branches of the School Medical Service. Cases are referred for X-ray examination from routine inspections, the various clinics, and, more especially, from the orthopædic branch. One session a week is devoted to radiography, and on an average 3 - 4 cases attend per session.

Dental Radiography.—Skiagrams of the teeth and jaws are useful in the diagnosis of some dental conditions. Sixteen children were referred by the school dentists during the year. Various abnormalities were detected, the commonest being apical abscess, dental cyst, and delayed eruption of permanent teeth.

Visual Defects.—The record of treatment of visual defects is shown on pages 36 and 37 in Appendix I. Altogether, 1,066 children were dealt with at the clinics, of whom 958 required examination for errors of refraction. The examination of 829 was completed during the year (as compared with 886 last year), spectacles being prescribed in 771 instances, and by the end of the year 687 children were known to have obtained them. Seventy-nine children were examined for defects other than errors of refraction, and appropriate treatment was given in each case. In addition, 26 children examined for errors of refraction were also treated for other eye defects.

During the year observations were made by the medical officers as to whether children were wearing spectacles that had been provided on prescriptions given at the clinics. It is pleasing to record that of 696 cases observed, only 8 were found not to be wearing spectacles at all or not wearing them regularly. This satisfactory condition of affairs is no doubt due to the co-operation of school teachers, who are asked to see that the children under their care wear glasses when prescribed.

Staff changes during the early part of the year, special enquiries, and new clinical work caused the routine inspections at schools to fall into arrears until the last term, with the result that there was a falling off in the supply of new cases for the vision clinic. By way of compensation there is a long waiting list for examination and treatment at the time of writing.

The following table, prepared by Dr. Sheasby, showing the diseases and defects treated amplifies the information given in the prescribed tables (Appendix I).—

| Diseases or Defects. | Boys. | Girls. | Totals. |
|---------------------------------------|-------|--------|---------|
| Squint | 66 | 75 | 141 |
| Errors of refraction— | | | |
| Hypermetropia | 95 | 98 | 193 |
| Myopia | 58 | 51 | 109 |
| Astigmatism— | | | |
| Hypermetropic | 158 | 199 | 357 |
| Myopic | 54 | 59 | 113 |
| Mixed | 31 | 42 | 73 |
| Conjunctivitis | 20 | 21 | 41 |
| Phlyctenular conjunctivitis | 9 | 17 | 26 |
| Blepharitis | 30 | 24 | 54 |
| Cataract— | | | |
| Congenital | 1 | 1 | 2 |
| Traumatic | 1 | 1 | 2 |
| Optic neuritis and choroiditis | 2 | 2 | 4 |
| Keratitis | 4 | 7 | 11 |
| Nebulæ | 23 | 33 | 56 |
| Leucoma adhærens | 1 | 1 | 2 |
| Mucocele | — | 1 | 1 |
| Corneal ulcer | 3 | 1 | 4 |
| Ptosis | 1 | 2 | 3 |
| Nystagmus | 4 | 3 | 7 |
| Persistent membrane | 1 | — | 1 |
| Optic atrophy | — | 1 | 1 |
| Coloboma of iris | — | 1 | 1 |
| Totals | 562 | 640 | 1,202 |

Ear, Nose and Throat Defects.—Particulars of operative and other forms of treatment of nose and throat defects carried out at the clinics are shown on page 38 in Appendix I, from which it will be seen that 1,217 nose and throat cases were examined, and that 593 received operative treatment, 73 operative and other forms of treatment, and 249 other forms of treatment only. The number of cases of serious ear defects dealt with was 321, of whom 274 received appropriate treatment.

The treatment of otorrhœa by zinc ionisation, which was commenced in November, 1925, has been continued with success, as the following notes by Dr. Sheasby indicate :—

Notes by Dr. Sheasby on the Treatment of Otorrhœa by Zinc Ionisation.

The total number of cases treated during the year was 122, as compared with 37 last year, when a start was made with this form of treatment. Parents are beginning to realise that this new method of treatment offers a better prospect of cure than anything which they had known of before, and they are asking to have it for their children. At present two sessions a week are devoted to ionisation, but another will soon have to be added if all the cases are to be efficiently dealt with.

The following table shows the results obtained :—

| | Boys. | Girls. | Total |
|---|-------|--------|-------|
| Treated by ionisation | 60 | 62 | 122 |
| Discharge ceased | 30 | 35 | 65 |
| " much improved | 11 | 16 | 27 |
| No change | 12 | 5 | 17 |
| Failed to attend for complete treatment | 3 | 2 | 5 |
| Still under treatment | 4 | 4 | 8 |

It will be seen from this table that 59.6 per cent. of the cases that had undergone complete treatment were cured.

An analysis of the records of the cases treated shows that practically all the children failing to show any improvement after ionisation had suffered from the complaint for periods varying from six to ten years or longer, while the great majority of those that cleared up had suffered for less than five years. In ten of the cases, however, which became dry, the disease had existed from six to ten years. Chronicity in itself cannot therefore be taken as a contra-indication for trying the treatment, and the procedure has been to ionise all cases, the treatment being preceded if necessary by removal of tonsils and adenoids or other conditions, such as polypi and granulations, which would interfere with its successful application. Tonsils and adenoids are removed at the clinic, while children with polypi and granulations are sent to the Cardiff Royal Infirmary for treatment of these conditions.

Apart from the benefit to the child of having the ear discharge stopped, the hearing in many cases was much improved or restored to normal. Of course it must be expected that in some of these children the otorrhœa will recur, and further treatment will be necessary, but, even so, once having got the ear in a healthier state by ionisation, it has been found that by the insufflation of boric acid powder residual or recurrent catarrh can be cleared up or kept in check.

There is no doubt that in zinc ionisation for otorrhœa the School Medical Service has a valuable aid to clinic work, but the full effect will not be attained for some years, that is when parents and teachers have fully appreciated its value and the cases can be got early, before the disease has attacked the deeper structures and bone.

Crippling Defects and Orthopædics.—The number of non-tuberculous cripples attending elementary schools at the end of the year was 259, while 23 others were prevented from attending school because of crippling defects.

The following is a summary of the work carried out at the orthopædic clinic during 1926 :—

| | Children of School Age. |
|---|----------------------------------|
| <i>Consultation Clinic.</i> — | |
| Examined for first time | 191 |
| Re-examined for first time | 183 |
| Recommended for treatment for first time | 149 |
| Previously treated, recommended for additional treatment | 35 |
| <i>Recommendations for.</i> — | |
| Treatment in Hospital | 61 |
| Treatment at Clinic | 50 |
| Appliances | 22 |
| Alterations to appliances | 2 |
| Special boots | 32 |
| Alterations to boots | 22 |
| Other forms of treatment | 5 |
| Treated at Clinic | 1 |
| Attendances at Clinic | 682 |
| <i>Routine Treatment (massage, electricity, exercises, etc.).</i> — | |
| Treated at Clinic for first time | 42 |
| Re-treated for first time | 44 |
| Attendances for routine treatment ... | 1,584 |

The following statement relates to treatment at and provision of appliances, etc. through the Prince of Wales' Hospital, Cardiff, during 1926 :—

| | Children of School Age. |
|---|----------------------------------|
| <i>Hospital Treatment.—</i> | |
| Admitted to Prince of Wales' Hospital— | |
| (a) Day cases | 1 |
| (b) Other cases | 23 |
| Under treatment at Prince of Wales' Hos- pital at end of 1926 | 6 |
| On Prince of Wales' Hospital waiting list at end of 1926— | |
| (a) Day cases | 8 |
| (b) Other cases | 23 |
| <i>Other treatment or provision.—</i> | |
| Appliances provided | 32 |
| Appliances altered | 5 |
| Special boots provided | 6 |
| Boots altered | 42 |
| Other forms of treatment provided ... | 3 |
| <i>Recovery of cost.—</i> | |
| Cases in which cost or part cost was re- claimed | 10 |
| Amount reclaimed | £39 7s. 0d. |
| Amount recovered | £7 7s. 6d. |

The following report by Dr. Betenson deals with the work of the orthopædic scheme from the commencement in November, 1925, to the end of 1926, and with children under and of school age. The clinic exists both for school children and for those under school age, the local education authority, of course, being responsible only for the cost of the former.

Report by Dr. Betenson on the Orthopædic Scheme.

The orthopædic clinic started work on 3rd November, 1925, so that the period with which this report deals is practically fourteen months ended 31st December, 1926.

The clinic occupies the whole-time service of one nurse, and the equivalent of two days per week of another nurse. A medical officer devotes two half-days per week to seeing cases at the clinic, one half-day at the Prince of Wales' Hospital (to take over any new cases that may be taken to the out-patient department), and as much additional time as he can possibly give to the work.

Mr. Alwyn Smith, orthopædic surgeon, visits the clinic once a month for seeing cases brought before him by the medical officer, and his services have been of inestimable value.

In order to present in a simplified form a table of cripples known to the Department as at 31st December, 1926, the following classification is again used :—

| Cause of Crippling. | Under 5 years | 5 - 16 years | Over 16 years | Totals |
|-------------------------------------|------------------|-----------------|------------------|--------|
| 1. Poliomyelitis | 48 | 94 | 8 | 150 |
| 2. Other Palsy | 11 | 42 | — | 53 |
| 3. Congenital Malformations | 32 | 33 | 3 | 68 |
| 4. Trauma | 1 | 13 | 5 | 19 |
| 5. Rickets | 82 | 16 | 1 | 99 |
| 6. Tuberculosis (non-active) | — | 24 | 6 | 30 |
| 7. Other Causes | 27 | 105 | 12 | 144 |
| Totals | 201 | 327 | 35 | 563 |

During the year 9 cases left the district and 6 died ; these have not been included in the foregoing table.

Of the 528 cases under the age of 16 years, 473 attended the clinic. The remaining 55 received treatment privately, attended the Prince of Wales' Hospital or the Cardiff Royal Infirmary, or refused to attend the clinic—a very small number. Those over 16 years included in the table are a mere fraction of the total in the city, most of whom are unknown to the Department. It should be noted that only non-active tuberculosis is dealt with, active cases being referred to the Welsh National Memorial Association.

The above table, giving seven main causes of crippling, must now be explained in more detail, since the proportions in the different categories differ from the proportions given last year. The classification on pages 22 and 23 is compiled on no official method and is somewhat arbitrary, but represents an attempt—in most of the cases from personal knowledge of the children—to group them according to the extent of disability, taking into consideration age, sex and mentality. The principal point kept in mind has been to what extent the child on leaving school will be hindered from obtaining work by his disability. Thus, bearing all the foregoing points in mind, the term “severe” applies only to those cases who will not be fit for more than sedentary occupations and who walk with difficulty ; “moderate” cases are those who have such disability as to preclude them in most of the cases from the usual employment which a boy or girl obtains on leaving school ; “slight” cases are all who have useful limbs though they walk with a limp, and who, on leaving school, should not reasonably be refused ordinary employment.

All the children aged 5 - 16 years have been classified as to their fitness to attend school, but this has not been possible in many of the cases under school age. Cases mentioned as “discharged” are those who have been cured or for whom no more can be done.

Opinions may differ as to what extent a child slightly crippled requires education in a school for physically defective children. The writer, on watching the exodus from a special school elsewhere, was impressed by the apparently trifling cases of deformity attending, and a much more conservative attitude has been observed in arriving at an estimate of the needs of Cardiff.

The detailed table on pages 22 and 23 may be summarised as follows :—

Children 5 - 16 years.

Crippling :—

| | | | | | |
|--------------|-----|-----|-----|-----|-----|
| Slight ... | ... | ... | ... | ... | 153 |
| Moderate ... | ... | ... | ... | ... | 117 |
| Severe ... | ... | ... | ... | ... | 52 |
| Total ... | | | | | 327 |

Fitness for School :—

| | |
|--|-----|
| Fit to attend Elementary School ... | 206 |
| „ „ „ Special Day School ... | 80 |
| Fit only for Special Residential School | 16 |
| Unfit for Schcol | 23 |
| Unclassified | 2 |
| Total | 327 |

Children under 5 years.

Crippling :—

| | | | | | |
|--------------|-----|-----|-----|-----|-----|
| Slight ... | ... | ... | ... | ... | 134 |
| Moderate ... | ... | ... | ... | ... | 36 |
| Severe ... | ... | ... | ... | ... | 31 |
| Total ... | | | | | 201 |

Fitness for school of cases regarding whom it was possible to arrive at a conclusion :—

| | | |
|---|--------|----|
| Fit to attend Elementary School | ... | 47 |
| „ „ „ Special Day School | ... | 10 |
| Fit only for Special Residential School | ... | 5 |
| Unfit for School | | 1 |
| Total | | 63 |

| | | | | | | | | | | | | | | | |
|------------------------------|---------------|--|-----|-----|-----|-----------------|---------------|--------------|-----------------|----------------|--------------|----------------|--------------|-------------|-----------------|
| 5. Rickets. | 5 - 16 years | Clinic cases ... Non-clinic cases ... Discharged ... | ... | ... | ... | 6 1 4 | 1 1 1 | 2 — — | 9 2 5 | 7 2 5 | — — — | — — — | 2 — — | — — — | 9 2 5 |
| | Under 5 years | Clinic cases ... Non-clinic cases ... Discharged ... | ... | ... | ... | 52 3 1 | 14 2 — | 9 1 — | 75* 6 1 | 8 1 1 | — — — | 67 5 — | — — — | — — — | 75* 6 1 |
| | 5 - 16 years | Clinic cases ... Non-clinic cases ... Discharged ... | ... | ... | ... | 3 — — | 14 5 — | 2 — — | 19 5 — | 10 1 — | 8 4 — | — — — | — — — | — — — | 19 5 — |
| 6. Tuberculosis (non-active) | Under 5 years | Clinic cases ... Non-clinic cases ... Discharged ... | ... | ... | ... | — — — | — — — | — — — | — — — | — — — | — — — | — — — | — — — | — — — | — — — |
| | 5 - 16 years | Clinic cases ... Non-clinic cases ... Discharged ... | ... | ... | ... | 58 4 10 | 20 — 2 | 10 1 — | 88 5 12 | 70 2 12 | 13 — — | — 2 — | 3 — — | — 2 — | 88 5 12 |
| | Under 5 years | Clinic cases ... Non-clinic cases ... Discharged ... | ... | ... | ... | 21 3 3 | — — — | — — — | 21 3 3 | 3 — 3 | — — — | 18 3 — | — — — | — — — | 21 3 3 |
| 7. Other Causes. | 5 - 16 years | Clinic cases ... Non-clinic cases ... Discharged ... | ... | ... | ... | 133 6 19 | 97 12 8 | 43 9 — | 273 27 27 | 171 9 26 | 70 9 1 | — 2 — | 18 5 — | — 2 — | 273 27 27 |
| | Under 5 years | Clinic cases ... Non-clinic cases ... Discharged ... | ... | ... | ... | 105 16 13 | 30 5 1 | 25 6 — | 160 27 14 | 33 1 13 | 9 — 1 | 112 26 — | 1 — — | — — — | 160 27 14 |
| | 0 - 16 years | All cases | ... | ... | ... | 292 | 153 | 83 | 528 | 253 | 90 | 140 | 24 | 21 | 528 |
| Totals. | 5 - 16 years | Clinic cases ... Non-clinic cases ... Discharged ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Under 5 years | Clinic cases ... Non-clinic cases ... Discharged ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | 0 - 16 years | All cases | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Grand Totals | ... | | | | | | | | | | | | | | |

* Including 27 cases of tibial curving without other evidence of rickets.

No attempt has been made to classify very young children as to fitness for school, but the large number suffering from rickets should certainly be fit for elementary schools when they become of school age.

A few notes on the various causes of crippling are given below.

1. *Poliomyelitis*.—This disease usually attacks young children, and is notifiable by medical practitioners. When notified, after consultation with the practitioner, the case is visited, and, if possible, arrangements made for an attendance at the clinic. If promptly attended to, the resulting deformity is much less than if the case is deprived of the special type of treatment available at the clinic. This disease is responsible for about 27 per cent. of crippling. The deformity is permanent, but cases receiving early attention may be much improved by plaster, splints and massage.

2. *Other Palsy*.—This comprises two highly important groups—both very serious as regards the child's outlook in life. (a) Congenital muscle spasm (Little's disease), always associated with mental deficiency, is in many respects our most serious problem. These cases vary in severity, from affection of one limb to all four. They are improved by operation, but require a long course of exercises after operation to get full benefit. (b) Birth paralysis affects usually an arm, and causes that limb invariably to be permanently almost useless. These rank as severe cases, since treatment, unless undertaken immediately after birth, is useless.

3. *Congenital Malformations*.—One of the commonest of these is club feet. Facilities are available at the clinic for treating such cases promptly as soon as they are found, and the result should be a complete cure before school age.

4. *Trauma*.—This includes children crippled from amputation of limbs and other injuries. The number of children known to the clinic is 14, of whom four have each lost a limb.

5. *Rickets*.—The numbers included here have risen considerably during the year. Cases showing definite signs of rickets, however, have not increased greatly, the difference of 57 from the figure recorded in the Report for 1925 being partly due to the inclusion of 27 cases of tibial deformity which are of doubtful rachitic origin. The history of the less pronounced cases does not show that the mother has sought advice owing to her infant being feverish, fretful and crying when moved, so typical of true rickets, but because her infant's legs are "growing bandy". Inquiries show, in the writer's experience, that many of these cases are breast-fed children, and the reason of their condition may be sought for in the consistent malnutrition of the mother, who has not hesitated to sacrifice her own food for her children in the lean period through which the city is passing.

6. *Tuberculosis (non-active)*.—Since active tuberculosis is not treated at the clinic, its function under this heading is confined to observation of existing deformities from past disease, keeping a careful watch on children for signs of spinal curvature, and helping when necessary with surgical boots and appliances.

7. *Other Causes of Crippling*.—The most important, though not the most numerous, cases are flat feet and spinal curvature. Both are apt to be overlooked by parents. Unfortunately, flat feet are very difficult to detect at routine school examinations, unless the child complains to the doctor. Flat feet are treated at the clinic by exercises, and the condition prevented from getting worse by altered boots. Spinal curvature of a purely postural type, when seen at its commencement, is treated by a course of exercises at the clinic, and such cases do well.

Treatment.—When the clinic started, the number of children to whom it was thought benefit could be given was very large, and far outranged both the time and space available. Bearing this in mind, a selection had to be made (1) of those who it was thought were so bad as to deserve some attempt to alleviate their condition if possible, and (2) of those who could derive most benefit by treatment, and, in any case, were of the type for whom the clinic is primarily intended. It must be remembered that a crippled child put on the list for treatment for most of the complaints ought to attend daily a course of treatment lasting between three months and a year in order to get full benefit. Daily treatment was found impracticable in nearly all cases; the mother could not bring the child, the child lost too much school time, or the resources of the clinic did not permit of it.

The total number of cases treated by the orthopaedic nurse (assisted by another for three sessions weekly during the last two months) was 88, and the number of attendances for treatment was over 3,080, or an average of over 35 per case. Most of the cases attended two or three times weekly, and a few every day for varying periods. Of the 88 cases treated, 25 were under 5 years of age. Twenty-three showed marked improvement, 16 some improvement, 20 slight improvement, and in 29 cases no benefit was derived; of this last number, 17 made under a dozen attendances each, and it is hardly fair to include them.

The following table shows in detail the results of treatment at the clinic :—

| Defect. | | | | Marked Improve- ment. | Some Improve- ment. | Very Slight Improve- ment. | No Improve- ment. | Totals. |
|-------------------------------|---|------------------|--------|-----------------------------|---------------------------|-------------------------------------|-------------------------|---------|
| Children 5 - 16 years. | { | Poliomyelitis | ... .. | 9 | 6 | 9 | 8 | 32 |
| | | Little's Disease | ... .. | 1 | 2 | 1 | 2 | 6 |
| | | Spinal Curvature | ... .. | 3 | 1 | 5 | 6 | 15 |
| | | Flat Feet | ... .. | 1 | — | 1 | 3 | 5 |
| | | Club Feet | ... .. | — | — | — | — | — |
| | | Other Conditions | ... .. | 1 | — | — | 4 | 5 |
| Totals | | | | 15 | 9 | 16 | 23 | 63 |
| Children under 5 years. | { | Poliomyelitis | ... .. | 3 | 2 | 3 | 3 | 11 |
| | | Little's Disease | ... .. | — | 1 | — | — | — |
| | | Spinal Curvature | ... .. | — | — | — | — | — |
| | | Flat Feet | ... .. | — | — | — | — | — |
| | | Club Feet | ... .. | 2 | 4 | 1 | 2 | 9 |
| | | Other Conditions | ... .. | 3 | — | — | 1 | 4 |
| Totals | | | | 8 | 7 | 4 | 6 | 25 |
| Grand Totals | | | | 23 | 16 | 20 | 29 | 88 |

Of the poliomyelitis cases much was not expected, but it was felt that something had to be attempted. In this connection it is interesting to note that of the 12 cases showing marked improvement, 7 had been classified as severe, and these are all walking better owing to the re-education of muscles paralysed from disuse. The results, however, do not appear to justify further treatment of cases under this heading, as severe, moderate and slight cases must unfortunately always remain as such, and no amount of treatment can alter them. In future, therefore, clinic treatment in the form of massage and electricity will be restricted to a very few specially selected cases, i.e., those with marked circulatory impairment, and, of course, all cases that have just passed the acute stage of the disease.

Little's disease, after operation, is a wearisome complaint for after-care. This, however, must be persisted in, since exercise of the affected limb results in increased utility. It must also be remembered that without subsequent exercises the modern operation of partial neurectomy can achieve very little.

One of the features of club feet in infants is the tendency to relapse if treatment is discontinued too soon, and for this reason the treatment required is protracted.

In nearly all the cases of rickets the principal lesion was curving of the tibiae, although most of these cases had manifestations in other bones. The 9 clinic cases aged 5 - 16 years are well, attend school, and show only slight evidence of past rickets. All except two of the 75 clinic cases under 5 years have been carefully kept under observation at the clinic and child welfare centres, with the following results :—

| | | |
|--|--------|----|
| Cases that attended the clinic once only | ... .. | 13 |
| Very slight cases | ... .. | 15 |
| Referred to Mr. Alwyn Smith at the clinic and recommended for— | | |
| Observation only | ... .. | 17 |
| Operation | ... .. | 10 |
| Plaster | ... .. | 4 |
| Altered boots, etc. | ... .. | 4 |
| | | 35 |
| Regarded as quite cured | ... .. | 6 |
| Attending Prince of Wales' Hospital | ... .. | 1 |
| Refused treatment | ... .. | 2 |
| Left the district | ... .. | 1 |
| Not traced | ... .. | 2 |
| Total | ... .. | 75 |

Cases referred to Mr. Alwyn Smith's Consultation Clinic.—During the period under survey Mr. Alwyn Smith paid 11 visits to the clinic and saw all the cases (280) that the medical officer judged necessary. Of these cases, 97 were recommended for operation, 37 for appliances, 75 for altered boots, 30 for exercises, and 6 for plaster. The necessary steps were at once taken for the recommendations to be carried out.

General.—Parents have, on the whole, shown readiness for their children to attend the clinic, and great willingness to follow instructions and carry out the treatment advised. Slackness is not noticed in the severe cases, but only in those with slight deformities. If a child with slight defect is improving, far too many parents think it is unnecessary to bring the child for re-examination; this has been most noticeable with the many cases of bow legs.

It remains a doubtful point as to how much of the nurses' time should be spent on visiting careless parents, as it has been found in a few instances that the mother regards the visits as a substitute for attendance at the clinic.

There are about twenty children living at Ely. Their attendance at the clinic has been, quite naturally by reason of the travelling expenses incurred, very irregular, and for routine treatment quite impossible.

Dental Inspection and Treatment.—Details of dental inspection and treatment are given in Appendix I (page 39). The year 1926 was the first complete year for three dentists to be working. There has therefore been an increase in the number of children examined and treated. The number of new cases treated was 4,182, and 1,201 were re-treated as the result of periodical examination.

PROVISION OF MEALS.

The arrangements continued throughout the year on the same lines as formerly. The following statement of the meals given during the years 1921-6, has been kindly supplied by the Superintendent School Attendance Officer:—

| | | No. of Canteens. | No. of Meals Supplied. | Average Weekly No. of Meals. | Average Weekly No. of Children fed. |
|------|----|---------------------|------------------------------|------------------------------------|--|
| 1921 | .. | 13 | 594,411 | 11,655 | 1,148 |
| 1922 | .. | 12 | 182,094 | 3,501 | 434 |
| 1923 | .. | 8 | 35,700 | 686 | 144 |
| 1924 | .. | 7 | 27,378 | 526 | 110 |
| 1925 | .. | 7 | 52,960 | 1,018 | 169 |
| 1926 | .. | 8 | 119,572 | 2,299 | 292 |

PHYSICAL EDUCATION.

Report of Miss Maud M. Brown, Chief Organiser of Physical Education, on Physical Education in the Elementary Schools:—

I beg to submit the following report on the work in the City of Cardiff Elementary Schools during 1926.

One hundred and ninety-six visits have been paid to girls', mixed and infants' departments, to swimming baths, playing fields and parks. Twenty-nine teachers' training classes have been held. One hundred and sixty-nine sessions have been given to the work of organisation.

Miss Perry, H.M. Inspector of Physical Education, visited the following schools during the year:—Pupil Teachers' Centre, Llanishen Nat. Mixed, Albany Road C. Girls', Splotlands C. Girls', Roath Park C. Girls', Ninian Park C. Girls', and Maindy C. Infants'. Miss Perry also visited the Teachers' Training Class Gymnasium, Howard Gardens.

The time table for physical education in the schools is unsatisfactory; in most schools the lesson is too long and not enough periods are given to the subject. The lessons as set out in the Board of Education syllabus are arranged for twenty-minute periods, and a daily lesson is recommended.

Teachers' Training Classes.—The following classes have been held :—

1. A course for upper school teachers on the Board of Education Syllabus of Physical Training, the average attendance being 23.
2. A course for upper school teachers in playground games ; average attendance 28.
3. A course for upper school teachers for net ball and rounders ; average attendance 18.
4. A course for teachers specialising in physical education in the upper standards ; average attendance 18.

In order that the children in the Cardiff schools shall have equal opportunities, it is essential that all teachers who take the subject should attend an up-to-date training course.

During the last three years, the more interested teachers who have attended voluntary training classes in physical education arranged by the Committee have worked well, and there is a marked difference between the work of these teachers and those who have not kept up-to date.

Playing Fields and Parks.—More open spaces near the schools are needed for the development of organised games. Mr. Pettigrew, Chief Officer of Parks, gives every possible help in arranging for playing pitches for schools, and we continue to enjoy the privilege of using Sophia Gardens Field and the Barracks Field.

Organised Games.—In some schools the organised games continue to improve. The standard of play and the behaviour shown during matches in the rounders competition are much higher than last year. The teachers who have done the training work, and the girls, are to be congratulated on this higher standard, and also on the great keenness shown in their games.

Fifteen schools entered for the rounders competition, the winners being Grange-town Nat. Mixed School.

On July 6th an address on " The Educational Value of Organised Games for Girls " was given by the Chief Organiser at a meeting of the Cardiff Head Teachers' Association. Councillor Rhoda Parker, Dr. Olive Wheeler and Mr. McHowat were present, and joined in the discussion which followed the address.

Two footballs have been supplied to every girls' and mixed school, and sixteen schools have net ball apparatus.

Sports.—It is pleasing to note a larger entry for the girls' events at the Cardiff School Football Sports and the Cardiff Athletic School Sports.

Swimming.—The second annual girls' swimming gala was held at the Corporation Baths on Tuesday, September 21st ; fifteen schools entered competitors, the total entry for the sixteen events being 879. This most encouraging entry necessitated preliminary heats being swum on Friday, September 17th, when 439 competitors, mostly beginners, were dealt with.

St. David's R.C. Girls' School is to be congratulated upon winning the largest number of points for their school, and is therefore the holder of the swimming picture for the second year in succession.

Alderman Thompson, Dr. and Mrs. Picken, and Miss Long were present.

The officials were :—

Judges.—Misses Rogers, Nesbitt, Pierson and Bracher.

Starter.—Miss Maud M. Brown.

There can be no doubt that the swimming contests would be even more successful than they have been, and that aquatic sports would receive a great stimulus in this city, if arrangements could be made to improve the hygienic state of the swimming-bath water by continuous filtration.

Country Dancing.—Great disappointment was felt by the 600 children who had hoped to dance on the occasion of the visit of the Duke of York to Cardiff on July 14th. However, these children were invited by the Juvenile Welfare Council to a country dance party in the Drill Hall, Dumfries Place, in December, and this proved a very popular event, about 400 spectators being present.

The standard of dancing attained by most of the children is remarkably good. The natural ease and unaffected grace are given full scope, and the team spirit in a social way is fostered.

EMPLOYMENT OF CHILDREN AND YOUNG PERSONS.

During the year 9 children (5 boys and 4 girls) were examined by medical officers of the Department at the request of the Juvenile Employment (Education) Officer and reports were sent for his guidance.

The following report relating to the employment of children of school age and young persons has been kindly supplied by the Juvenile Employment (Education) Officer, Mr. Ben. Williams :—

A child under the age of 12 years cannot now be legally employed.

The approximate number of child employees under old conditions was 2,000. They were from 10 years of age and upwards and worked anything up to 36 hours a week, before, between and after school hours.

The hawking of newspapers is illegal except for boys over the age of 15 years. Boys between 15 and 16 years need a licence for his work.

Fifteen hours per week is the maximum number of hours which a child may be employed under the provisions of the Bye-Laws made under the Employment of Children Act, 1903, as amended by the Education Act, 1918, excepting in the delivery of milk and newspapers, where two hours employment is allowed on Sunday mornings, which makes a maximum of 17 hours per week for these two employments.

TABLE I.

Age of School Children Employed out of School Hours.

| | | | | 12 years. | 13 years. | 14 years. | Totals. |
|-----------|----|----|----|-----------|-----------|-----------|---------|
| Boys | .. | .. | .. | 48 | 211 | 60 | 319 |
| Girls | .. | .. | | 1 | 3 | 2 | 6 |
| Totals .. | | | | 49 | 214 | 62 | 325 |

TABLE II.

Nature of Employment of School Children Employed out of School Hours.

| Nature of Employment. | | | | Boys. | Girls. | Totals. |
|-----------------------|----|----|--|-------|--------|---------|
| Assisting in Shops | .. | .. | | 2 | — | 2 |
| Delivery of Bread | .. | .. | | 15 | — | 15 |
| Delivery of Milk .. | .. | .. | | 17 | 1 | 18 |
| Domestic Work .. | .. | .. | | — | 2 | 2 |
| Errands .. | .. | .. | | 151 | — | 151 |
| Miscellaneous .. | .. | .. | | 134 | 3 | 137 |
| Totals .. | | | | 319 | 6 | 325 |

TABLE III.

Number of Hours of Employment per Week (including Saturday and Sunday)
of School Children Employed out of School Hours.

| Number of Hours per Week. | Boys. | Girls. | Totals. |
|------------------------------|-------|--------|---------|
| 1 .. | — | — | — |
| 2 .. | 1 | — | 1 |
| 3 .. | — | — | — |
| 4 .. | 2 | — | 2 |
| 5 .. | 29 | 2 | 31 |
| 6 .. | — | — | — |
| 7 .. | 9 | — | 9 |
| 8 .. | — | — | — |
| 9 .. | — | — | — |
| 10 .. | — | — | — |
| 11 .. | — | — | — |
| 12 .. | 27 | 1 | 28 |
| 13 .. | 15 | 1 | 16 |
| 14 .. | 11 | — | 11 |
| 15 .. | 206 | 2 | 208 |
| 16 .. | — | — | — |
| 17 .. | 19 | — | 19 |
| Totals | 319 | 6 | 325 |

Entertainment Section.—The number of children licensed by the Education Committee and examined by medical officers of the School Medical Officer's Department during 1926, was 38, and 6 children visited Cardiff on license from other areas.

MEDICAL EXAMINATION OF TEACHERS.

All teachers newly appointed under the Education Authority, pupil teachers entering the Training Centre, and other teachers sent for special reasons are examined by the medical staff, and reports are forwarded to the Director of Education on a form specially prepared for the purpose.

During 1926 the numbers examined were:—

| | Males. | Females. | Totals. |
|---------------------|--------|----------|---------|
| Pupil Teachers .. . | 3 | 13 | 16 |
| Teachers | 33 | 46 | 79 |
| Totals | 36 | 59 | 95 |

The actual number of examinations made was 104.

APPENDIX I.

YEAR ENDED 31st DECEMBER, 1926.

TABLE I.

RETURN OF MEDICAL INSPECTIONS.

A.—ROUTINE MEDICAL INSPECTIONS.

| | Elementary Schools. | | | Secondary and High Schools. | | |
|---------------------------|---------------------|--------|---------|-----------------------------|--------|---------|
| | Boys. | Girls. | Totals. | Boys. | Girls. | Totals. |
| Entrants | 2,514 | 2,501 | 5,015 | — | — | — |
| Intermediates | 2,135 | 1,731 | 3,866 | — | — | — |
| Leavers | 1,377 | 1,397 | 2,774 | — | — | — |
| Other Routine Inspections | — | — | — | 1,424 | 1,246 | 2,670 |
| Totals .. | 6,026 | 5,629 | 11,655 | 1,424 | 1,246 | 2,670 |

B.—SPECIAL INSPECTIONS.

| | | | | Elementary Schools. | | | Secondary and High Schools. | | |
|----------------------|-----------------------|----|----|---------------------|--------|---------|-----------------------------|--------|---------|
| | | | | Boys. | Girls. | Totals. | Boys. | Girls. | Totals. |
| Special Inspections. | { At School .. | .. | .. | 342 | 378 | 720 | — | — | — |
| | { At School Clinic .. | .. | .. | 1,354 | 1,555 | 2,909 | 11 | 11 | 22 |
| Totals | | | | 1,696 | 1,933 | 3,629 | 11 | 11 | 22 |
| Re-inspections. | { At School .. | .. | .. | 633 | 714 | 1,347 | — | — | — |
| | { At School Clinic .. | .. | .. | 2,717 | 2,850 | 5,567 | 16 | 174 | 190 |
| Totals | | | | 3,350 | 3,564 | 6,914 | 16 | 174 | 190 |

TABLE II.

A.—RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION.

| DISEASE OR DEFECT. | ROUTINE INSPECTIONS. | | | | SPECIAL INSPECTIONS. | | | |
|--|----------------------|-------------------------------|-----------------------------|-------------------------------|----------------------|-------------------------------|-----------------------------|-------------------------------|
| | Elementary Schools. | | Secondary and High Schools. | | Elementary Schools. | | Secondary and High Schools. | |
| | Requiring Treatment. | To be kept under Observation. | Requiring Treatment. | To be kept under Observation. | Requiring Treatment. | To be kept under Observation. | Requiring Treatment. | To be kept under Observation. |
| Malnutrition | 45 | 37 | ... | 2 | 10 | 7 | ... | ... |
| Uncleanliness | 119 | ... | 1 | ... | 10 | ... | ... | ... |
| Skin :— | | | | | | | | |
| Ringworm :— | | | | | | | | |
| Scalp | 4 | ... | ... | ... | 100 | ... | ... | ... |
| Body | 11 | ... | ... | ... | 121 | ... | 2 | ... |
| Scabies | 21 | ... | ... | ... | 94 | ... | ... | ... |
| Impetigo | 43 | ... | ... | ... | 388 | ... | ... | ... |
| Other Diseases(Non-Tuberculous) | 24 | 6 | 3 | ... | 166 | ... | 1 | ... |
| Eye :— | | | | | | | | |
| Blepharitis | 28 | ... | 4 | ... | 71 | ... | 1 | ... |
| Conjunctivitis | 5 | ... | 1 | ... | 35 | ... | ... | ... |
| Keratitis | ... | ... | ... | ... | ... | ... | ... | ... |
| Corneal Opacities | ... | ... | 1 | ... | 2 | 1 | ... | ... |
| Defective Vision (excluding Squint) | 611 | 71 | 162 | 2 | 328 | 17 | ... | ... |
| Squint | 80 | 1 | 2 | ... | 63 | ... | ... | ... |
| Other Conditions | 12 | ... | 1 | ... | 25 | 1 | 1 | ... |
| Ear :— | | | | | | | | |
| Defective Hearing | 74 | 3 | 6 | ... | 77 | ... | ... | ... |
| Otitis Media | 103 | 5 | 10 | 1 | 87 | ... | ... | ... |
| Other Ear Diseases | 2 | ... | 1 | ... | 15 | ... | ... | ... |

TABLE II. A—continued.

| DISEASE OR DEFECT. | ROUTINE INSPECTIONS. | | | | SPECIAL INSPECTIONS. | | | |
|--|----------------------|-------------------------------|-----------------------------|-------------------------------|----------------------|-------------------------------|-----------------------------|-------------------------------|
| | Elementary Schools. | | Secondary and High Schools. | | Elementary Schools. | | Secondary and High Schools. | |
| | Requiring Treatment. | To be kept under Observation. | Requiring Treatment. | To be kept under Observation. | Requiring Treatment. | To be kept under Observation. | Requiring Treatment. | To be kept under Observation. |
| Nose and Throat :— | | | | | | | | |
| Enlarged Tonsils only ... | 435 | 313 | 23 | 8 | 167 | 28 | 1 | ... |
| Adenoids only ... | 23 | 6 | 3 | 1 | 28 | 5 | ... | ... |
| Enlarged Tonsils & Adenoids ... | 36 | 10 | 1 | ... | 75 | 3 | ... | ... |
| Other Conditions ... | 10 | 3 | 6 | 2 | 42 | 6 | ... | ... |
| Enlarged Cervical Glands (Non-Tuberculous) ... | 8 | 23 | ... | ... | 17 | 2 | ... | ... |
| Defective Speech ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Teeth :— | | | | | | | | |
| Dental Diseases ... | 1,123 | ... | 194 | ... | 201 | ... | ... | ... |
| Heart and Circulation :— | | | | | | | | |
| Heart Disease :— | | | | | | | | |
| Organic ... | ... | 74 | ... | 6 | 1 | 24 | ... | ... |
| Functional ... | ... | 57 | ... | 11 | ... | 3 | ... | ... |
| Anæmia ... | 35 | 10 | 1 | 4 | 39 | 10 | ... | ... |
| Lungs :— | | | | | | | | |
| Bronchitis ... | 4 | 15 | ... | ... | 12 | 5 | ... | ... |
| Other Non-Tuberculous Diseases ... | 3 | 171 | ... | 10 | 11 | 11 | ... | ... |
| Tuberculosis :— | | | | | | | | |
| Pulmonary :— | | | | | | | | |
| Definite ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Suspected ... | ... | ... | 1 | ... | 8 | 1 | ... | ... |
| Non-Pulmonary :— | | | | | | | | |
| Glands ... | ... | 4 | ... | ... | 4 | 1 | ... | ... |
| Spine ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Hip ... | 1 | ... | ... | ... | 3 | ... | ... | ... |
| Other Bones and Joints ... | 1 | ... | ... | ... | ... | ... | ... | ... |
| Skin ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Other Forms ... | ... | ... | ... | ... | 1 | 1 | ... | ... |
| Nervous System :— | | | | | | | | |
| Epilepsy ... | ... | 2 | ... | ... | 6 | 1 | ... | ... |
| Chorea ... | ... | ... | ... | ... | 18 | 9 | ... | ... |
| Other Conditions ... | ... | 1 | ... | 1 | ... | ... | ... | ... |
| Deformities :— | | | | | | | | |
| Rickets ... | ... | 2 | ... | ... | ... | ... | ... | ... |
| Spinal Curvature ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Other Forms ... | 53 | 19 | 10 | 3 | 23 | 2 | 1 | ... |
| Other Defects and Diseases ... | 24 | 28 | 24 | 5 | 176 | 25 | 2 | ... |

B.—NUMBER OF INDIVIDUAL CHILDREN FOUND AT ROUTINE AND SPECIAL INSPECTION TO REQUIRE TREATMENT (EXCLUDING UNCLEANLINESS AND DENTAL DISEASES).

| | Elementary Schools. | | | Secondary and High Schools. | | |
|------------------|---------------------|-----------------------------|--|-----------------------------|-----------------------------|--|
| | Number of Children. | | Percentage of Children found to require treatment. | Number of Children. | | Percentage of Children found to require treatment. |
| | Inspected. | Found to require treatment. | | Inspected. | Found to require treatment. | |
| Entrants .. | 5,015 | 435 | 8.7 | .. | .. | .. |
| Intermediates .. | 3,866 | 650 | 16.8 | .. | .. | .. |
| Leavers .. | 2,774 | 446 | 16.1 | .. | .. | .. |
| Others .. | .. | .. | .. | 2,670 | 257 | 9.6 |
| Totals .. | 11,655 | 1,531 | 13.1 | 2,670 | 257 | 9.6 |
| Specials .. | 3,629 | 2,058 | 56.7 | 22 | 8 | 36.4 |
| Grand totals | 15,284 | 3,589 | 23.5 | 2,692 | 265 | 9.8 |

TABLE II. C.
 ENTRANTS FOUND SO DEFECTIVE AS TO REQUIRE TREATMENT OR TO BE KEPT UNDER OBSERVATION, SHOWING THE NUMBER OF INSTANCES
 IN WHICH THEY SUFFERED FROM MORE THAN ONE DISEASE OR DEFECT.

| Referred for Treatment or Observation as suffering from | No. of Entrants found defective | NUMBER OF DEFECTS REFERRED FOR TREATMENT OR OBSERVATION | | | | | | | | | | | | Total No. of Defects |
|--|--|---|------------------------------------|-------|---------|-------------------------------------|--------|------|--------------------|---------------------------------|------|-------|------------------|----------------------------|
| | | Tuberculosis —Pulmonary | Tuberculosis —Non- Pulmonary | Heart | Anaemia | Respiratory —Not Tuberculosis | Vision | Ears | Nose and Throat | Eyes (external and other) | Skin | Teeth | Other Defects | |
| Tuberculosis—Pulmonary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Tuberculosis—Non-Pulmonary | 1 | .. | 1 | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 |
| Defects of Heart | 50 | .. | .. | 50 | .. | .. | .. | .. | 5 | 2 | .. | 1 | 1 | 59 |
| Anaemia | 15 | .. | .. | .. | 15 | 2 | .. | .. | 4 | 2 | .. | 1 | .. | 24 |
| Respiratory Defects (Not Tuberculosis) | 113 | .. | .. | .. | .. | 113 | .. | 1 | 13 | 2 | 1 | 14 | 5 | 149 |
| Defects of Vision | 16 | .. | .. | .. | .. | .. | 16 | 1 | 2 | .. | .. | .. | 1 | 20 |
| .. Ears | 32 | .. | .. | .. | .. | .. | .. | 32 | 4 | 2 | .. | 9 | .. | 47 |
| .. Nose and Throat | 378 | .. | .. | .. | .. | .. | .. | .. | 378 | 9 | 5 | 63 | 11 | 466 |
| .. Eyes (external & other) | 65 | .. | .. | .. | .. | .. | .. | .. | .. | 65 | .. | 11 | 4 | 80 |
| .. Skin | 49 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 49 | 3 | 1 | 53 |
| .. Teeth | 426 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 426 | 20 | 446 |
| Other Defects | 118 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 118 | 118 |
| TOTALS | 1,263 | .. | 1 | 51 | 15 | 115 | 16 | 34 | 406 | 82 | 55 | 528 | 161 | 1,464 |

Total number of entrants examined : 5,015.

Number found to be normal : 3,752.

TABLE III
RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

| | | | Boys. | Girls. | Totals. |
|--|---|---|-------|--------|---------|
| Blind (including partially blind). | (i) Suitable for training in a school or class for the totally blind. | Attending Certified Schools or Classes for the Blind | 12 | 3 | 15* |
| | | Attending Public Elementary Schools | .. | .. | .. |
| | | At other Institutions | .. | .. | .. |
| | | At no School or Institution | .. | .. | .. |
| | (ii) Suitable for training in a school or class for the partially blind. | Attending Certified Schools or Classes for the Blind | 8 | 7 | 15 |
| | | Attending Public Elementary Schools | 8 | 6 | 14 |
| | | At other Institutions | .. | .. | .. |
| | | At no School or Institution.. .. . | 3 | .. | 3 |
| Deaf (including deaf and dumb and partially deaf). | (i) Suitable for training in a school or class for the totally deaf or deaf and dumb. | Attending Certified Schools or Classes for the Deaf | 11 | 6 | 17† |
| | | Attending Public Elementary Schools | .. | .. | .. |
| | | At other Institutions | .. | .. | .. |
| | | At no School or Institution | .. | 1 | 1 |
| | (ii) Suitable for training in a school or class for the partially deaf. | Attending Certified Schools or Classes for the Deaf | .. | .. | .. |
| | | Attending Public Elementary Schools | 21 | 17 | 38 |
| | | At other Institutions | .. | .. | .. |
| | | At no School or Institution | .. | .. | .. |
| Mentally Defective. | Feeble-minded (cases not notifiable to the Local Control Authority). | Attending Certified Schools for Mentally Defective Children | 58 | 37 | 95 |
| | | Attending Public Elementary Schools | .. | .. | .. |
| | | At other Institutions | .. | .. | .. |
| | | At no School or Institution | 9 | 6 | 15§ |
| | Notified to the Local Control Authority during the year. | Feeble-minded | 1 | 1 | 2 |
| | | Imbeciles | 6 | .. | 6 |
| Idiots | | 1 | 3 | 4 | |
| Epileptics. | Suffering from severe epilepsy | Attending Certified Special Schools for Epileptics | .. | 2 | 2 |
| | | In Institutions other than Certified Special Schools | .. | .. | .. |
| | | Attending Public Elementary Schools | 1 | 1 | 2 |
| | | At no School or Institution | 3 | 4 | 7 |
| | Suffering from epilepsy which is not severe | Attending Public Elementary Schools | 17 | 9 | 26 |
| | | At no School or Institution | .. | 1 | 1 |

* In addition 1 boy not residing in the area is in attendance.

† In addition 4 boys and 6 girls not residing in the area are in attendance.

§ Including 4 boys and 4 girls attending private schools.

TABLE III.—continued.

| | | | Boys. | Girls. | Totals. |
|-----------------------|---|--|-------|--------|---------|
| Physically Defective. | Infectious pulmonary and glandular tuberculosis. | At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board | 2 | .. | 2 |
| | | At other Institutions | 1 | .. | 1 |
| | | At no School or Institution | 4 | 3 | 7 |
| | Non-infectious but active pulmonary and glandular tuberculosis. | At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board | .. | .. | .. |
| | | At Certified Residential Open Air Schools | .. | .. | .. |
| | | At Certified Day Open Air Schools | .. | .. | .. |
| | | At Public Elementary Schools | 20 | 18 | 38 |
| | | At other Institutions | .. | .. | .. |
| | | At no School or Institution | .. | .. | .. |
| | Delicate children (<i>e.g.</i> , pre- or latent tuberculosis, mal-nutrition, debility anæmia, etc.). | At Certified Residential Open Air Schools | .. | .. | .. |
| | | At Certified Day Open Air Schools | .. | .. | .. |
| | | At Public Elementary Schools | 100 | 83 | 183 |
| | | At other Institutions | .. | .. | .. |
| | | At no School or Institution | 19 | 9 | 28 |
| | Active non-pulmonary tuberculosis. | At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board | 7 | 5 | 12 |
| | | At Public Elementary Schools | 16 | 12 | 28 |
| | | At other Institutions | 2 | 1 | 3 |
| | | At no School or Institution | 12 | 9 | 21 |
| | Crippled children (other than those with active tuberculous disease) <i>e.g.</i> children suffering from paralysis, &c., and including those with severe heart disease. | At Certified Hospital Schools | .. | .. | .. |
| | | At Certified Residential Cripple Schools | .. | .. | .. |
| | | At Certified Day Cripple Schools | .. | .. | .. |
| | | At Public Elementary Schools | 216 | 241 | 457* |
| | | At other Institutions | .. | 3 | 3 |
| | | At no School or Institution | 29 | 34 | 63† |

*Comprising :—

| | Boys. | Girls. | Totals. |
|------------------------------|-------|--------|---------|
| Cripples | 132 | 127 | 259 |
| Severe Heart Disease | 77 | 101 | 178 |
| Chorea | 7 | 13 | 20 |

† Comprising :—

| | Boys. | Girls. | Totals. |
|------------------------------|-------|--------|---------|
| Cripples | 12 | 11 | 23 |
| Severe Heart Disease | 8 | 12 | 20 |
| Chorea | 9 | 11 | 20 |

TABLE IV.

RETURN OF DEFECTS TREATED.

TREATMENT TABLE.

GROUP I.—Minor Ailments (excluding Uncleanliness, for which see Group V.)

| Disease or Defect. | Number of Defects Treated or under Treatment during the Year. | | | | | |
|--|---|------------|---------|-------------------------------|------------|---------|
| | Elementary Schools. | | | Secondary and High Schools. | | |
| | Under the Authority's Scheme. | Otherwise. | Totals. | Under the Authority's Scheme. | Otherwise. | Totals. |
| Skin :— | | | | | | |
| Ringworm—Scalp .. | 99 | .. | 99 | .. | .. | .. |
| „ Body .. | 120 | .. | 120 | 2 | .. | 2 |
| Scabies | 103 | 2 | 105 | .. | .. | .. |
| Impetigo | 407 | 2 | 409 | .. | .. | .. |
| Other Skin Diseases | 171 | 1 | 172 | 2 | .. | 2 |
| Minor Eye Defects (External and other but excluding cases falling in Group II) | 72 | 5 | 77 | 1 | .. | 1 |
| Minor Ear Defects. | 19 | 1 | 20 | .. | .. | .. |
| Miscellaneous (e.g., minor injuries bruises, sores, chil- blains, etc.) .. | 131 | 7 | 138 | .. | .. | .. |
| Totals | 1,122 | 18 | 1,140 | 5 | .. | 5 |

GROUP II. (a)—Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I.).

| | Number of Defects Dealt with. | | | | | | | |
|--|-------------------------------|--|-------------|---------|-------------------------------|--|-------------|---------|
| | Elementary Schools. | | | | Secondary and High Schools. | | | |
| | Under the Authority's Scheme. | Submitted to Refraction by Private Practitioners or at Hospital. | Other-wise. | Totals. | Under the Authority's Scheme. | Submitted to Refraction by Private Practitioners or at Hospital. | Other-wise. | Totals. |
| Errors of Refraction | 753 | 11 | 8 | 772 | 76 | 14 | 2 | 92 |
| Other Defect or Disease of the Eyes (excluding those recorded in Group I.). .. | 105 | .. | 4 | 109 | .. | .. | .. | .. |
| Totals .. | 858 | 11 | 12 | 881 | 76 | 14 | 2 | 92 |

| | Elementary Schools. | Secondary and High Schools. |
|---|---------------------|-----------------------------|
| Number of Children for whom Spectacles were Prescribed :— | | |
| (a) Under the Authority's Scheme .. | 700 | 71 |
| (b) Otherwise | 17 | 16 |
| Number of Children who obtained or received Spectacles :— | | |
| (a) Under the Authority's Scheme .. | 641* | 46 |
| (b) Otherwise | 17 | 16 |

* Including 33 at half cost and 153 free of charge.

GROUP II. (b)—Additional Particulars with reference to the Treatment of Visual Defects.

| | Elementary Schools. | Secondary and High Schools. |
|--|------------------------|-----------------------------------|
| Examined at the Special School Clinic | 981 | 85 |
| (a) Examined for Errors of Refraction | 874 | 84 |
| (1) Examination completed | 753 | 76 |
| (2) For whom glasses were prescribed | 700 | 71 |
| (3) For whom glasses were provided :— | | |
| (a) By parents only under Local Authority's scheme | 455 | 46 |
| (b) With assistance of Local Authority | 33 | — |
| (c) Free of charge | 153 | — |
| (4) For whom glasses were not prescribed | 53 | 5 |
| (5) Failed to attend for completion of examination | 102 | 4 |
| (6) Other treatment required :— | | |
| (a) Glasses also prescribed—included in (2) | 15 | — |
| (b) Not requiring glasses—included in (4) | 11 | — |
| (7) Received other treatment | 26 | — |
| (8) Old Cases (1925) for whom glasses were provided in 1926— | | |
| (a) By parents only under Local Authority's scheme | 7 | 2 |
| (b) With assistance of Local Authority | — | — |
| (c) Free of charge | 2 | — |
| (b) Examined for Defects other than Errors of Refraction | 79 | — |
| (1) For whom treatment was recommended | 79 | — |
| (2) Received treatment | 79 | — |
| (3) For whom no treatment was considered necessary | — | — |
| (c) Number of attendances of Vision Cases at the School Clinic | 2,574 | 193 |

GROUP III. (a)—Treatment of Defects of Nose and Throat.

| | Elementary Schools. | Secondary and High Schools. |
|---|------------------------|-----------------------------------|
| At Special School Clinic :— | | |
| Examined | 1,179 | 38 |
| Received operative treatment | 584 | 9 |
| Received operative and other forms of treatment | 73 | — |
| Received other forms of treatment only | 230 | 19 |
| Attendances of nose and throat cases | 3,453 | 61 |
| By Private Practitioners or at Hospital :— | | |
| Received operative treatment | 9 | 1 |
| Received operative and other forms of treatment | — | — |
| Received other forms of treatment only | 19 | 2 |

GROUP III. (b)—Treatment of Serious Ear Defects.

| | Elementary Schools. | Secondary and High Schools. |
|---|------------------------|-----------------------------------|
| At Special School Clinic :— | | |
| Examined | 304 | 17 |
| Received operative treatment | — | — |
| Received operative and other forms of treatment | — | — |
| Received other forms of treatment only | 258 | 16 |
| Attendances of serious ear cases | 1,412 | 59 |
| By Private Practitioners or at Hospital :— | | |
| Received operative treatment | 1 | — |
| Received operative and other forms of treatment | — | — |
| Received other forms of treatment only | 4 | — |

GROUP IV.—Dental Defects.

| | | | | | | Elementary Schools. | Secondary and High Schools. |
|--|----|----|----|----|----|------------------------|-----------------------------------|
| (1) Number of Children who were :— | | | | | | | |
| (a) Inspected by the Dentists : | | | | | | | |
| Aged : | | | | | | | |
| Routine Age Groups | 4 | .. | .. | .. | .. | 29 | |
| | 5 | .. | .. | .. | .. | 1,485 | — |
| | 6 | .. | .. | .. | .. | 2,312 | — |
| | 7 | .. | .. | .. | .. | 1,776 | — |
| | 8 | .. | .. | .. | .. | 1,251 | — |
| | 9 | .. | .. | .. | .. | 906 | — |
| | 10 | .. | .. | .. | .. | 631 | — |
| | 11 | .. | .. | .. | .. | 426 | — |
| | 12 | .. | .. | .. | .. | 393 | — |
| | 13 | .. | .. | .. | .. | 290 | — |
| | 14 | .. | .. | .. | .. | 125 | — |
| Total | | | | | | 9,624 | — |
| Specials | | | | | | 3,305 | 165 |
| Grand Total | | | | | | 12,929 | 165 |
| (b) Found to require treatment | | | | | | 10,466 | 158 |
| (c) Actually treated | | | | | | 4,060 | 122 |
| (d) Re-treated during the year as the result of periodical examination | | | | | | 1,165 | 36 |
| (2) Half-days devoted to :— | | | | | | | |
| Inspection | | | | | | 89 | — |
| Treatment | | | | | | 1,350 | — |
| Total | | | | | | 1,439 | —* |
| (3) Attendances made by children for treatment | | | | | | 11,398 | 609 |
| (4) Fillings :— | | | | | | | |
| Permanent teeth | | | | | | 2,788 | 437 |
| Temporary teeth | | | | | | 518 | 4 |
| Total | | | | | | 3,306 | 441 |
| (5) Extractions :— | | | | | | | |
| Permanent teeth | | | | | | 2,489 | 152 |
| Temporary teeth | | | | | | 13,283 | 68 |
| Total | | | | | | 15,772 | 220 |
| (6) Administrations of general anæsthetics for extractions | | | | | | 4,513 | 121 |
| (7) Other operations :— | | | | | | | |
| Permanent teeth | | | | | | 818 | 128 |
| Temporary teeth | | | | | | 23 | — |
| Total | | | | | | 841 | 128 |

Treatment of Dental Defects by Private Dentists :—

| | | | | | | Elementary Schools. | Secondary and High Schools. |
|------------------|--|--|--|--|--|------------------------|-----------------------------------|
| Children treated | | | | | | 60 | 17 |

* Not differentiated.

GROUP V.—Uncleanliness and Verminous Conditions.

Elementary Schools.

| | |
|---|--------|
| (i) Average number of visits per school made during the year by the school nurses .. | 2.7 |
| (ii) Total number of examinations of children in the schools by school nurses. .. | 52,140 |
| (iii) Number of individual children found unclean :— | |
| With vermin | 844 |
| With nits only | 2,911 |
| | 3,755 |
| (iv) Number of children cleansed under arrangements made by the Local Education Authority :— | |
| Previously verminous | 108 |
| Previously with nits only | 178 |
| Previously verminous found to be free from vermin but not free from nits | 484 |
| | 770* |

GROUP VI.—Known Treatment of all other Defects.

| Disease or Defect. | Defects treated. | | |
|---|--|------------|---------|
| | By Private Practitioners, at Hospital, or Tuberculosis Dispensary. | Otherwise. | Totals. |
| Malnutrition | 1 | 11 | 12 |
| Enlarged Cervical Glands | — | — | — |
| Heart Diseases | 3 | — | 3 |
| Anæmia | 3 | 7 | 10 |
| Diseases of Lungs (non-tuberculous) | 4 | — | 4 |
| Pulmonary Tuberculosis | — | — | — |
| Other forms of Tuberculosis | 1 | — | 1 |
| Diseases of Nervous System | 2 | — | 2 |
| Deformities | — | — | — |
| Other Diseases and Defects | 6 | 4 | 10 |

TABLE V.

AVERAGE HEIGHTS AND WEIGHTS OF CHILDREN INSPECTED.

Elementary Schools.

| Age-Years. | Boys. | | | Girls. | | |
|------------|---------|-----------------|-----------------|---------|-----------------|-----------------|
| | Number. | Average Height. | Average Weight. | Number. | Average Height. | Average Weight. |
| | | ins. | lbs. | | ins. | lbs. |
| 3 | 49 | 37.4 | 32.7 | 52 | 37.6 | 31.4 |
| 4 | 646 | 40.1 | 38.9 | 560 | 39.9 | 36.3 |
| 5 | 1,046 | 42.0 | 40.3 | 1,054 | 41.8 | 38.9 |
| 6 | 632 | 44.4 | 44.7 | 671 | 44.0 | 42.5 |
| 7 | 123 | 45.8 | 47.0 | 141 | 45.9 | 45.9 |
| 8 | 74 | 49.9 | 55.5 | 48 | 48.9 | 52.7 |
| 9 | 1,909 | 50.2 | 58.8 | 1,622 | 50.2 | 57.7 |
| 10 | 162 | 51.7 | 62.4 | 127 | 50.8 | 60.3 |
| 12 | 770 | 55.2 | 75.9 | 762 | 56.5 | 78.7 |
| 13 | 607 | 56.9 | 79.6 | 635 | 57.4 | 83.4 |

*Including cases actually cleansed by the school nurses, cases dealt with at the Corporation Cleansing Station, and cases cleansed by parents on advice given by the nurses.

TABLE VI.
RESULTS OF MEDICAL RE-INSPECTION OF 1,293 CHILDREN FOUND DURING 1925 TO REQUIRE TREATMENT OR TO BE KEPT UNDER OBSERVATION.

| | Treated at School Clinic. | | | | Treated Elsewhere. | | | Not Treated. | | | Totals. | | | Total Number of Defects. |
|--|---------------------------|-------------------|-------|---------------------|--------------------|--------|---------------------|-------------------|--------|---------------------|-------------------|--------|-------|--------------------------|
| | Cured or Im-proved. | No Im-prove-ment. | Worse | Cured or Im-proved. | No Im-prove-ment. | Worse. | Cured or Im-proved. | No Im-prove-ment. | Worse. | Cured or Im-proved. | No Im-prove-ment. | Worse. | | |
| Eye Diseases | 261 | 11 | 1 | 5 | 3 | 1 | 11 | 150 | 4 | 277 | 164 | 6 | 447 | |
| Ear Diseases | 53 | 4 | .. | 3 | .. | .. | .. | 26 | .. | 56 | 30 | .. | 86 | |
| Diseases of Nose & Throat | 171 | 9 | .. | 7 | 2 | .. | 49 | 185 | 2 | 227 | 196 | 2 | 425 | |
| Enlarged Cervical Glands | 7 | .. | .. | 1 | .. | .. | .. | 7 | .. | 8 | 7 | .. | 15 | |
| Defective Speech .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 1 | .. | .. | 1 | |
| Heart Diseases .. | 3 | 6 | .. | 5 | 1 | .. | 8 | 41 | .. | 16 | 48 | .. | 64 | |
| Anæmia | 2 | 1 | .. | 22 | 3 | .. | .. | 8 | .. | 24 | 12 | .. | 36 | |
| Lung Diseases(^{Non-} Tuberculous) | 16 | 2 | .. | 39 | 2 | .. | 1 | 12 | .. | 56 | 16 | .. | 72 | |
| Tuber- culosis { Pulmonary (Non-Pulmonary | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | |
| | .. | .. | .. | 4 | .. | .. | .. | .. | .. | 4 | .. | .. | 4 | |
| Nervous Diseases .. | 1 | .. | .. | 4 | .. | .. | .. | .. | .. | 5 | .. | .. | 5 | |
| Deformities | 2 | 4 | .. | 5 | .. | .. | .. | 11 | .. | 7 | 15 | .. | 22 | |
| Other Defects & Diseases | 30 | 1 | .. | 65 | 5 | .. | 10 | 45 | 1 | 105 | 51 | 1 | 157 | |
| Totals | 546 | 38 | 1 | 161 | 16 | 1 | 79 | 485 | 7 | 786 | 539 | 9 | 1,334 | |

APPENDIX II.

NOTES BY DR. BETENSON ON THE ANTHROPOMETRIC INQUIRY.

The inquiry was undertaken at the instance of the Board of Education during the latter part of 1925 and the first six months of 1926. In all, forty schools in Cardiff were visited, one child of each sex being selected from the ages 5 - 13 inclusive, thus making 18 children from each school and a total of 720 (360 of each sex). All the elementary schools were visited with the exception of Croft Street National Infants', Canton National Girls' and Infants', Gabalfa Council Junior Mixed and Infants', Llanishen National Mixed and Infants', Llandaff Council Mixed, and Llandaff North National Mixed and Infants'. In these schools the numbers are small, accommodation for examination of children limited, and the requisite number was obtainable without them.

Procedure.—This was strictly in accordance with the Board's Circular of July, 1925. In selecting the children, an attempt was made at the start to get three groups of children for each age, *i.e.*, age x years + 5 months, age x years + 6 months, and age x years + 7 months. In the opinion, however, of one of the Anthropometric Committee of the Board (W.R.D), the numbers examined were not considered large enough to justify this, and attention was confined throughout most of the period of examination to children of age x years + 7 months, or as near as possible, since a start had already been made on children of this age. The names of children selected to be examined were chosen at random from the school registers, and in no case did the examiner see the child prior to selection. In only one case was the child selected not examined, because of exceptional family circumstances.

Details of Examination.—Prior to the Board's Circular of 20th July, 1926, a large number of cards had been returned by the nurses giving parents' nationality as British; these have all been revised and the nationality more specifically stated.

The stature and sitting height were taken precisely as directed in the Board's Circular of July, 1925.

Weight has been taken to the nearest 4 oz., *e.g.*, where a child's weight has been given in the two readings as 2 st. 8½ lb. and 2 st. 8¾ lb., the correct weight must be judged as midway between the two. In some schools the machines registered in the metric system, but the same rule has been observed. In all cases boys have been weighed in knickers and stockings only. Care has been taken to see that pockets were empty and no braces or belts worn; any deviation from above-mentioned clothing, as for example trousers, combinations, etc., has been mentioned. Similarly, all girls have been weighed in chemise, knickers and stockings, and in any case where the garments worn have been different special mention of the fact has been made. On the card, where any remarks have been made in the space for "additional garments if any" the complete clothing at the time of weighing has been supplied, as it was soon realised in course of the examination that doubt might arise as to what might or might not be called "additional garments" as clothing, particularly in girls, differed in many instances.

The chest measurements were found difficult. The Board's Circular of July, 1925, stated that "the child was to be asked to count twenty aloud quickly all in the same breath, the measurement to be taken at the end of this period of expiration." This was tried, but many young children could not count twenty, and in particular children below 9 years of age were usually unable to count twenty in one breath. In consequence, measurements of these children have been taken as near to full expiration as possible. Thus all chest measurements prior to 8th March, 1926, when the Board's Circular regarding chest measurement and full expiration arrived, have been taken at the end of the count of twenty in one breath, except for the difficulty as outlined above. After this date full expiration was aimed at, and, except in infants of 5 and 6 years approximately, always obtained.

The only point for remark as to the colour of eyes by tintometer was the rarity of being able to classify eyes into No. 2, or pale green.

The colour of hair by tintometer presented no difficulty, but a need was felt for a shade intermediate with No. 3 (brown auburn) and No. 4 (light brown).

In regard to the measurement of head, the circumferential measurement was difficult to obtain accurately in girls, but in all cases great care was taken to get the tape under the hair. Unfortunately, the antero-posterior and lateral measurements of the head were taken in centimetres and the circumference in inches, owing to a metric caliper being used in the first two instances, and a tape measure, with which all other measurements were taken, in the last instance. Any case presenting unusual features has been mentioned under the heading of abnormalities.

Results.—Much of the information obtained is not significant in the small groups into which these statistics would have to be split up. The details of each child measured have been sent to the Anthropometric Committee of the Board for collation along with the records from other parts of the Country.

